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(54) Title: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

(57) Abstract: The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.



NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

1. BACKGROUND OF THE INVENTION

1.1 TECHNICAL FIELD

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The present invention provides novel polynucleotides and proteins encoded by such polynucleotides, along with uses for these polynucleotides and proteins, for example in therapeutic, diagnostic and research methods.

1.2 BACKGROUND

Technology aimed at the discovery of protein factors (including e.g., cytokines, such as lymphokines, interferons, CSFs, chemokines, and interleukins) has matured rapidly over the past decade. The now routine hybridization cloning and expression cloning techniques clone novel polynucleotides "directly" in the sense that they rely on information directly related to the discovered protein (i.e., partial DNA/amino acid sequence of the protein in the case of hybridization cloning; activity of the protein in the case of expression cloning). More recent "indirect" cloning techniques such as signal sequence cloning, which isolates DNA sequences based on the presence of a now well-recognized secretory leader sequence motif, as well as various PCR-based or low stringency hybridization-based cloning techniques, have advanced the state of the art by making available large numbers of DNA/amino acid sequences for proteins that are known to have biological activity, for example, by virtue of their secreted nature in the case of leader sequence cloning, by virtue of their cell or tissue source in the case of PCR-based techniques, or by virtue of structural similarity to other genes of known biological activity.

Identified polynucleotide and polypeptide sequences have numerous applications in, for example, diagnostics, forensics, gene mapping; identification of mutations responsible for genetic disorders or other traits, to assess biodiversity, and to produce many other types of data and products dependent on DNA and amino acid sequences.

30 2. SUMMARY OF THE INVENTION

The compositions of the present invention include novel isolated polypeptides, novel isolated polynucleotides encoding such polypeptides, including recombinant DNA molecules, cloned genes or degenerate variants thereof, especially naturally occurring variants such as

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allelic variants, antisense polynucleotide molecules, and antibodies that specifically recognize one or more epitopes present on such polypeptides, as well as hybridomas producing such antibodies.

The compositions of the present invention additionally include vectors, including expression vectors, containing the polynucleotides of the invention, cells genetically engineered to contain such polynucleotides and cells genetically engineered to express such polynucleotides.

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The present invention relates to a collection or library of at least one novel nucleic acid sequence assembled from expressed sequence tags (ESTs) isolated mainly by sequencing by hybridization (SBH), and in some cases, sequences obtained from one or more public databases. The invention relates also to the proteins encoded by such polynucleotides, along with therapeutic, diagnostic and research utilities for these polynucleotides and proteins. These nucleic acid sequences are designated as SEQ ID NO: 1 – 948. The polypeptide sequences are designated SEQ ID NOS: 949-1896. The nucleic acids and polypeptides are provided in the Sequence Listing. In the nucleic acids provided in the Sequence Listing, A is adenine; C is cytosine; G is guanine; T is thymine; and N is any of the four bases. In the amino acids provided in the Sequence Listing, * corresponds to the stop codon.

The nucleic acid sequences of the present invention also include, nucleic acid sequences that hybridize to the complement of SEQ ID NO: 1-948 under stringent hybridization conditions; nucleic acid sequences which are allelic variants or species homologues of any of the nucleic acid sequences recited above, or nucleic acid sequences that encode a peptide comprising a specific domain or truncation of the peptides encoded by SEQ ID NO: 1-948. A polynucleotide comprising a nucleotide sequence having at least 90% identity to an identifying sequence of SEQ ID NO: 1-948 or a degenerate variant or fragment thereof. The identifying sequence can be 100 base pairs in length.

The nucleic acid sequences of the present invention also include the sequence information from the nucleic acid sequences of SEQ ID NO: 1-948. The sequence information can be a segment of any one of SEQ ID NO: 1-948 that uniquely identifies or represents the sequence information of SEQ ID NO: 1-948.

A collection as used in this application can be a collection of only one polynucleotide. The collection of sequence information or identifying information of each sequence can be provided on a nucleic acid array. In one embodiment, segments of sequence information is provided on a nucleic acid array to detect the polynucleotide that contains the segment. The

array can be designed to detect full-match or mismatch to the polynucleotide that contains the segment. The collection can also be provided in a computer-readable format.

This invention also includes the reverse or direct complement of any of the nucleic acid sequences recited above; cloning or expression vectors containing the nucleic acid sequences; and host cells or organisms transformed with these expression vectors. Nucleic acid sequences (or their reverse or direct complements) according to the invention have numerous applications in a variety of techniques known to those skilled in the art of molecular biology, such as use as hybridization probes, use as primers for PCR, use in an array, use in computer-readable media, use in sequencing full-length genes, use for chromosome and gene mapping, use in the recombinant production of protein, and use in the generation of anti-sense DNA or RNA, their chemical analogs and the like.

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In a preferred embodiment, the nucleic acid sequences of SEQ ID NO: 1-948 or novel segments or parts of the nucleic acids of the invention are used as primers in expression assays that are well known in the art. In a particularly preferred embodiment, the nucleic acid sequences of SEQ ID NO: 1-948 or novel segments or parts of the nucleic acids provided herein are used in diagnostics for identifying expressed genes or, as well known in the art and exemplified by Vollrath et al., Science 258:52-59 (1992), as expressed sequence tags for physical mapping of the human genome.

The isolated polynucleotides of the invention include, but are not limited to, a polynucleotide comprising any one of the nucleotide sequences set forth in SEQ ID NO: 949-1896; a polynucleotide comprising any of the full length protein coding sequences of SEQ ID NO: 1–948; and a polynucleotide comprising any of the nucleotide sequences of the mature protein coding sequences of SEQ ID NO: 1–948. The polynucleotides of the present invention also include, but are not limited to, a polynucleotide that hybridizes under stringent hybridization conditions to (a) the complement of any one of the nucleotide sequences set forth in SEQ ID NO: 1–948; (b) a nucleotide sequence encoding any one of the amino acid sequences set forth in the Sequence Listing; (c) a polynucleotide which is an allelic variant of any polynucleotides recited above; (d) a polynucleotide which encodes a species homolog (e.g. orthologs) of any of the proteins recited above; or (e) a polynucleotide that encodes a polypeptide comprising a specific domain or truncation of any of the polypeptides comprising an amino acid sequence set forth in the Sequence Listing.

The isolated polypeptides of the invention include, but are not limited to, a polypeptide comprising any of the amino acid sequences set forth in the Sequence Listing; or the corresponding full length or mature protein. Polypeptides of the invention also include

polypeptides with biological activity that are encoded by (a) any of the polynucleotides having a nucleotide sequence set forth in SEQ ID NO: 1-948; or (b) polynucleotides that hybridize to the complement of the polynucleotides of (a) under stringent hybridization conditions. Biologically or immunologically active variants of any of the polypeptide sequences in the Sequence Listing, and "substantial equivalents" thereof (e.g., with at least about 65%, 70%, 75%, 80%, 85%, 90%, 95%, 98% or 99% amino acid sequence identity) that preferably retain biological activity are also contemplated. The polypeptides of the invention may be wholly or partially chemically synthesized but are preferably produced by recombinant means using the genetically engineered cells (e.g. host cells) of the invention.

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The invention also provides compositions comprising a polypeptide of the invention. Polypeptide compositions of the invention may further comprise an acceptable carrier, such as a hydrophilic, e.g., pharmaceutically acceptable, carrier.

The invention also provides host cells transformed or transfected with a polynucleotide of the invention.

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The invention also relates to methods for producing a polypeptide of the invention comprising growing a culture of the host cells of the invention in a suitable culture medium under conditions permitting expression of the desired polypeptide, and purifying the polypeptide from the culture or from the host cells. Preferred embodiments include those in which the protein produced by such process is a mature form of the protein.

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Polynucleotides according to the invention have numerous applications in a variety of techniques known to those skilled in the art of molecular biology. These techniques include use as hybridization probes, use as oligomers, or primers, for PCR, use for chromosome and gene mapping, use in the recombinant production of protein, and use in generation of anti-sense DNA or RNA, their chemical analogs and the like. For example, when the expression of an mRNA is largely restricted to a particular cell or tissue type, polynucleotides of the invention can be used as hybridization probes to detect the presence of the particular cell or tissue mRNA in a sample using, e.g., in situ hybridization.

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In other exemplary embodiments, the polynucleotides are used in diagnostics as expressed sequence tags for identifying expressed genes or, as well known in the art and exemplified by Vollrath et al., Science 258:52-59 (1992), as expressed sequence tags for physical mapping of the human genome.

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The polypeptides according to the invention can be used in a variety of conventional procedures and methods that are currently applied to other proteins. For example, a polypeptide of the invention can be used to generate an antibody that specifically binds the

polypeptide. Such antibodies, particularly monoclonal antibodies, are useful for detecting or quantitating the polypeptide in tissue. The polypeptides of the invention can also be used as molecular weight markers, and as a food supplement.

Methods are also provided for preventing, treating, or ameliorating a medical condition which comprises the step of administering to a mammalian subject a therapeutically effective amount of a composition comprising a polypeptide of the present invention and a pharmaceutically acceptable carrier.

In particular, the polypeptides and polynucleotides of the invention can be utilized, for example, in methods for the prevention and/or treatment of disorders involving aberrant protein expression or biological activity.

The present invention further relates to methods for detecting the presence of the polynucleotides or polypeptides of the invention in a sample. Such methods can, for example, be utilized as part of prognostic and diagnostic evaluation of disorders as recited herein and for the identification of subjects exhibiting a predisposition to such conditions. The invention provides a method for detecting the polynucleotides of the invention in a sample, comprising contacting the sample with a compound that binds to and forms a complex with the polynucleotide of interest for a period sufficient to form the complex and under conditions sufficient to form a complex and detecting the complex such that if a complex is detected, the polynucleotide of interest is detected. The invention also provides a method for detecting the polypeptides of the invention in a sample comprising contacting the sample with a compound that binds to and forms a complex with the polypeptide under conditions and for a period sufficient to form the complex and detecting the formation of the complex such that if a complex is formed, the polypeptide is detected.

The invention also provides kits comprising polynucleotide probes and/or monoclonal antibodies, and optionally quantitative standards, for carrying out methods of the invention. Furthermore, the invention provides methods for evaluating the efficacy of drugs, and monitoring the progress of patients, involved in clinical trials for the treatment of disorders as recited above.

The invention also provides methods for the identification of compounds that modulate (i.e., increase or decrease) the expression or activity of the polynucleotides and/or polypeptides of the invention. Such methods can be utilized, for example, for the identification of compounds that can ameliorate symptoms of disorders as recited herein. Such methods can include, but are not limited to, assays for identifying compounds and other substances that interact with (e.g., bind to) the polypeptides of the invention. The invention

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provides a method for identifying a compound that binds to the polypeptides of the invention comprising contacting the compound with a polypeptide of the invention in a cell for a time sufficient to form a polypeptide/compound complex, wherein the complex drives expression of a reporter gene sequence in the cell; and detecting the complex by detecting the reporter gene sequence expression such that if expression of the reporter gene is detected the compound the binds to a polypeptide of the invention is identified.

The methods of the invention also provides methods for treatment which involve the administration of the polynucleotides or polypeptides of the invention to individuals exhibiting symptoms or tendencies. In addition, the invention encompasses methods for treating diseases or disorders as recited herein comprising administering compounds and other substances that modulate the overall activity of the target gene products. Compounds and other substances can effect such modulation either on the level of target gene/protein expression or target protein activity.

The polypeptides of the present invention and the polynucleotides encoding them are also useful for the same functions known to one of skill in the art as the polypeptides and polynucleotides to which they have homology (set forth in Table 2); for which they have a signature region (as set forth in Table 3); or for which they have homology to a gene family (as set forth in Table 4). If no homology is set forth for a sequence, then the polypeptides and polynucleotides of the present invention are useful for a variety of applications, as described herein, including use in arrays for detection.

3. DETAILED DESCRIPTION OF THE INVENTION

3.1 DEFINITIONS

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It must be noted that as used herein and in the appended claims, the singular forms "a", "an" and "the" include plural references unless the context clearly dictates otherwise.

The term "active" refers to those forms of the polypeptide which retain the biologic and/or immunologic activities of any naturally occurring polypeptide. According to the invention, the terms "biologically active" or "biological activity" refer to a protein or peptide having structural, regulatory or biochemical functions of a naturally occurring molecule. Likewise "immunologically active" or "immunological activity" refers to the capability of the natural, recombinant or synthetic polypeptide to induce a specific immune response in appropriate animals or cells and to bind with specific antibodies.

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The term "activated cells" as used in this application are those cells which are engaged in extracellular or intracellular membrane trafficking, including the export of secretory or enzymatic molecules as part of a normal or disease process.

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The terms "complementary" or "complementarity" refer to the natural binding of polynucleotides by base pairing. For example, the sequence 5'-AGT-3' binds to the complementary sequence 3'-TCA-5'. Complementarity between two single-stranded molecules may be "partial" such that only some of the nucleic acids bind or it may be "complete" such that total complementarity exists between the single stranded molecules. The degree of complementarity between the nucleic acid strands has significant effects on the efficiency and strength of the hybridization between the nucleic acid strands.

The term "embryonic stem cells (ES)" refers to a cell that can give rise to many differentiated cell types in an embryo or an adult, including the germ cells. The term "germ line stem cells (GSCs)" refers to stem cells derived from primordial stem cells that provide a steady and continuous source of germ cells for the production of gametes. The term "primordial germ cells (PGCs)" refers to a small population of cells set aside from other cell lineages particularly from the yolk sac, mesenteries, or gonadal ridges during embryogenesis that have the potential to differentiate into germ cells and other cells. PGCs are the source from which GSCs and ES cells are derived The PGCs, the GSCs and the ES cells are capable of self-renewal. Thus these cells not only populate the germ line and give rise to a plurality of terminally differentiated cells that comprise the adult specialized organs, but are able to regenerate themselves.

The term "expression modulating fragment," EMF, means a series of nucleotides which modulates the expression of an operably linked ORF or another EMF.

As used herein, a sequence is said to "modulate the expression of an operably linked sequence" when the expression of the sequence is altered by the presence of the EMF. EMFs include, but are not limited to, promoters, and promoter modulating sequences (inducible elements). One class of EMFs are nucleic acid fragments which induce the expression of an operably linked ORF in response to a specific regulatory factor or physiological event.

The terms "nucleotide sequence" or "nucleic acid" or "polynucleotide" or "oligonculeotide" are used interchangeably and refer to a heteropolymer of nucleotides or the sequence of these nucleotides. These phrases also refer to DNA or RNA of genomic or synthetic origin which may be single-stranded or double-stranded and may represent the sense or the antisense strand, to peptide nucleic acid (PNA) or to any DNA-like or RNA-like material. In the sequences herein A is adenine, C is cytosine, T is thymine, G is guanine and

N is A, C, G or T (U). It is contemplated that where the polynucleotide is RNA, the T (thymine) in the sequences provided herein is substituted with U (uracil). Generally, nucleic acid segments provided by this invention may be assembled from fragments of the genome and short oligonucleotide linkers, or from a series of oligonucleotides, or from individual nucleotides, to provide a synthetic nucleic acid which is capable of being expressed in a recombinant transcriptional unit comprising regulatory elements derived from a microbial or viral operon, or a eukaryotic gene.

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The terms "oligonucleotide fragment" or a "polynucleotide fragment", "portion," or "segment" or "probe" or "primer" are used interchangeably and refer to a sequence of nucleotide residues which are at least about 5 nucleotides, more preferably at least about 7 nucleotides, more preferably at least about 11 nucleotides, more preferably at least about 11 nucleotides and most preferably at least about 17 nucleotides. The fragment is preferably less than about 500 nucleotides, preferably less than about 200 nucleotides, more preferably less than about 100 nucleotides, more preferably less than about 50 nucleotides and most preferably less than 30 nucleotides. Preferably the probe is from about 6 nucleotides to about 200 nucleotides, preferably from about 15 to about 50 nucleotides, more preferably from about 17 to 30 nucleotides and most preferably from about 20 to 25 nucleotides. Preferably the fragments can be used in polymerase chain reaction (PCR), various hybridization procedures or microarray procedures to identify or amplify identical or related parts of mRNA or DNA molecules. A fragment or segment may uniquely identify each polynucleotide sequence of the present invention. Preferably the fragment comprises a sequence substantially similar to any one of SEQ ID NOs:1-948.

Probes may, for example, be used to determine whether specific mRNA molecules are present in a cell or tissue or to isolate similar nucleic acid sequences from chromosomal DNA as described by Walsh et al. (Walsh, P.S. et al., 1992, PCR Methods Appl 1:241-250). They may be labeled by nick translation, Klenow fill-in reaction, PCR, or other methods well known in the art. Probes of the present invention, their preparation and/or labeling are elaborated in Sambrook, J. et al., 1989, Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory, NY; or Ausubel, F.M. et al., 1989, Current Protocols in Molecular Biology, John Wiley & Sons, New York NY, both of which are incorporated herein by reference in their entirety.

The nucleic acid sequences of the present invention also include the sequence information from the nucleic acid sequences of SEQ ID NOs: 1-948. The sequence information can be a segment of any one of SEQ ID NOs: 1-948 that uniquely identifies or

represents the sequence information of that sequence of SEQ ID NO: 1-948. One such segment can be a twenty-mer nucleic acid sequence because the probability that a twenty-mer is fully matched in the human genome is 1 in 300. In the human genome, there are three billion base pairs in one set of chromosomes. Because 4^{20} possible twenty-mers exist, there are 300 times more twenty-mers than there are base pairs in a set of human chromosomes. Using the same analysis, the probability for a seventeen-mer to be fully matched in the human genome is approximately 1 in 5. When these segments are used in arrays for expression studies, fifteen-mer segments can be used. The probability that the fifteen-mer is fully matched in the expressed sequences is also approximately one in five because expressed sequences comprise less than approximately 5% of the entire genome sequence.

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Similarly, when using sequence information for detecting a single mismatch, a segment can be a twenty-five mer. The probability that the twenty-five mer would appear in a human genome with a single mismatch is calculated by multiplying the probability for a full match $(1+4^{25})$ times the increased probability for mismatch at each nucleotide position (3 x 25). The probability that an eighteen mer with a single mismatch can be detected in an array for expression studies is approximately one in five. The probability that a twenty-mer with a single mismatch can be detected in a human genome is approximately one in five.

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The term "open reading frame," ORF, means a series of nucleotide triplets coding for amino acids without any termination codons and is a sequence translatable into protein.

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The terms "operably linked" or "operably associated" refer to functionally related nucleic acid sequences. For example, a promoter is operably associated or operably linked with a coding sequence if the promoter controls the transcription of the coding sequence. While operably linked nucleic acid sequences can be contiguous and in the same reading frame, certain genetic elements e.g. repressor genes are not contiguously linked to the coding sequence but still control transcription/translation of the coding sequence.

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The term "pluripotent" refers to the capability of a cell to differentiate into a number of differentiated cell types that are present in an adult organism. A pluripotent cell is restricted in its differentiation capability in comparison to a totipotent cell.

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The terms "polypeptide" or "peptide" or "amino acid sequence" refer to an oligopeptide, peptide, polypeptide or protein sequence or fragment thereof and to naturally occurring or synthetic molecules. A polypeptide "fragment," "portion," or "segment" is a stretch of amino acid residues of at least about 5 amino acids, preferably at least about 7 amino acids, more preferably at least about 9 amino acids and most preferably at least about 17 or more amino acids. The peptide preferably is not greater than about 200 amino acids,

more preferably less than 150 amino acids and most preferably less than 100 amino acids. Preferably the peptide is from about 5 to about 200 amino acids. To be active, any polypeptide must have sufficient length to display biological and/or immunological activity.

The term "naturally occurring polypeptide" refers to polypeptides produced by cells that have not been genetically engineered and specifically contemplates various polypeptides arising from post-translational modifications of the polypeptide including, but not limited to, acetylation, carboxylation, glycosylation, phosphorylation, lipidation and acylation.

The term "translated protein coding portion" means a sequence which encodes for the full length protein which may include any leader sequence or any processing sequence.

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The term "mature protein coding sequence" means a sequence which encodes a peptide or protein without a signal or leader sequence. The "mature protein portion" means that portion of the protein which does not include a signal or leader sequence. The peptide may have been produced by processing in the cell which removes any leader/signal sequence. The mature protein portion may or may not include the initial methionine residue. The methionine residue may be removed from the protein during processing in the cell. The peptide may be produced synthetically or the protein may have been produced using a polynucleotide only encoding for the mature protein coding sequence.

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The term "derivative" refers to polypeptides chemically modified by such techniques as ubiquitination, labeling (e.g., with radionuclides or various enzymes), covalent polymer attachment such as pegylation (derivatization with polyethylene glycol) and insertion or substitution by chemical synthesis of amino acids such as ornithine, which do not normally occur in human proteins.

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The term "variant" (or "analog") refers to any polypeptide differing from naturally occurring polypeptides by amino acid insertions, deletions, and substitutions, created using, e g., recombinant DNA techniques. Guidance in determining which amino acid residues may be replaced, added or deleted without abolishing activities of interest, may be found by comparing the sequence of the particular polypeptide with that of homologous peptides and minimizing the number of amino acid sequence changes made in regions of high homology (conserved regions) or by replacing amino acids with consensus sequence.

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Alternatively, recombinant variants encoding these same or similar polypeptides may be synthesized or selected by making use of the "redundancy" in the genetic code. Various codon substitutions, such as the silent changes which produce various restriction sites, may be introduced to optimize cloning into a plasmid or viral vector or expression in a particular prokaryotic or eukaryotic system. Mutations in the polynucleotide sequence may be reflected

in the polypeptide or domains of other peptides added to the polypeptide to modify the properties of any part of the polypeptide, to change characteristics such as ligand-binding affinities, interchain affinities, or degradation/turnover rate.

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Preferably, amino acid "substitutions" are the result of replacing one amino acid with another amino acid having similar structural and/or chemical properties, *i.e.*, conservative amino acid replacements. "Conservative" amino acid substitutions may be made on the basis of similarity in polarity, charge, solubility, hydrophobicity, hydrophilicity, and/or the amphipathic nature of the residues involved. For example, nonpolar (hydrophobic) amino acids include alanine, leucine, isoleucine, valine, proline, phenylalanine, tryptophan, and methionine; polar neutral amino acids include glycine, serine, threonine, cysteine, tyrosine, asparagine, and glutamine; positively charged (basic) amino acids include arginine, lysine, and histidine; and negatively charged (acidic) amino acids include aspartic acid and glutamic acid. "Insertions" or "deletions" are preferably in the range of about 1 to 20 amino acids, more preferably 1 to 10 amino acids. The variation allowed may be experimentally determined by systematically making insertions, deletions, or substitutions of amino acids in a polypeptide molecule using recombinant DNA techniques and assaying the resulting recombinant variants for activity.

Alternatively, where alteration of function is desired, insertions, deletions or non-conservative alterations can be engineered to produce altered polypeptides. Such alterations can, for example, alter one or more of the biological functions or biochemical characteristics of the polypeptides of the invention. For example, such alterations may change polypeptide characteristics such as ligand-binding affinities, interchain affinities, or degradation/turnover rate. Further, such alterations can be selected so as to generate polypeptides that are better suited for expression, scale up and the like in the host cells chosen for expression. For example, cysteine residues can be deleted or substituted with another amino acid residue in order to eliminate disulfide bridges.

The terms "purified" or "substantially purified" as used herein denotes that the indicated nucleic acid or polypeptide is present in the substantial absence of other biological macromolecules, e.g., polynucleotides, proteins, and the like. In one embodiment, the polynucleotide or polypeptide is purified such that it constitutes at least 95% by weight, more preferably at least 99% by weight, of the indicated biological macromolecules present (but water, buffers, and other small molecules, especially molecules having a molecular weight of less than 1000 daltons, can be present).

The term "isolated" as used herein refers to a nucleic acid or polypeptide separated from at least one other component (e.g., nucleic acid or polypeptide) present with the nucleic acid or polypeptide in its natural source. In one embodiment, the nucleic acid or polypeptide is found in the presence of (if anything) only a solvent, buffer, ion, or other component normally present in a solution of the same. The terms "isolated" and "purified" do not encompass nucleic acids or polypeptides present in their natural source.

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The term "recombinant," when used herein to refer to a polypeptide or protein, means that a polypeptide or protein is derived from recombinant (e.g., microbial, insect, or mammalian) expression systems. "Microbial" refers to recombinant polypeptides or proteins made in bacterial or fungal (e.g., yeast) expression systems. As a product, "recombinant microbial" defines a polypeptide or protein essentially free of native endogenous substances and unaccompanied by associated native glycosylation. Polypeptides or proteins expressed in most bacterial cultures, e.g., E. coli, will be free of glycosylation modifications; polypeptides or proteins expressed in yeast will have a glycosylation pattern in general different from those expressed in mammalian cells.

The term "recombinant expression vehicle or vector" refers to a plasmid or phage or virus or vector, for expressing a polypeptide from a DNA (RNA) sequence. An expression vehicle can comprise a transcriptional unit comprising an assembly of (1) a genetic element or elements having a regulatory role in gene expression, for example, promoters or enhancers, (2) a structural or coding sequence which is transcribed into mRNA and translated into protein, and (3) appropriate transcription initiation and termination sequences. Structural units intended for use in yeast or eukaryotic expression systems preferably include a leader sequence enabling extracellular secretion of translated protein by a host cell. Alternatively, where recombinant protein is expressed without a leader or transport sequence, it may include an amino terminal methionine residue. This residue may or may not be subsequently cleaved from the expressed recombinant protein to provide a final product.

The term "recombinant expression system" means host cells which have stably integrated a recombinant transcriptional unit into chromosomal DNA or carry the recombinant transcriptional unit extrachromosomally. Recombinant expression systems as defined herein will express heterologous polypeptides or proteins upon induction of the regulatory elements linked to the DNA segment or synthetic gene to be expressed. This term also means host cells which have stably integrated a recombinant genetic element or elements having a regulatory role in gene expression, for example, promoters or enhancers. Recombinant expression systems as defined herein will express polypeptides or proteins

endogenous to the cell upon induction of the regulatory elements linked to the endogenous DNA segment or gene to be expressed. The cells can be prokaryotic or eukaryotic.

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The term "secreted" includes a protein that is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence when it is expressed in a suitable host cell. "Secreted" proteins include without limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g., receptors) from the cell in which they are expressed. "Secreted" proteins also include without limitation proteins that are transported across the membrane of the endoplasmic reticulum. "Secreted" proteins are also intended to include proteins containing non-typical signal sequences (e.g. Interleukin-1 Beta, see Krasney, P.A. and Young, P.R. (1992) Cytokine 4(2):134-143) and factors released from damaged cells (e.g. Interleukin-1 Receptor Antagonist, see Arend, W.P. et. al. (1998) Annu. Rev. Immunol. 16:27-55)

Where desired, an expression vector may be designed to contain a "signal or leader sequence" which will direct the polypeptide through the membrane of a cell. Such a sequence may be naturally present on the polypeptides of the present invention or provided from heterologous protein sources by recombinant DNA techniques.

The term "stringent" is used to refer to conditions that are commonly understood in the art as stringent. Stringent conditions can include highly stringent conditions (i.e., hybridization to filter-bound DNA in 0.5 M·NaHPO₄, 7% sodium dodecyl sulfate (SDS), 1 mM EDTA at 65°C, and washing in 0.1X SSC/0.1% SDS at 68°C), and moderately stringent conditions (i.e., washing in 0.2X SSC/0.1% SDS at 42°C). Other exemplary hybridization conditions are described herein in the examples.

In instances of hybridization of deoxyoligonucleotides, additional exemplary stringent hybridization conditions include washing in 6X SSC/0.05% sodium pyrophosphate at 37°C (for 14-base oligonucleotides), 48°C (for 17-base oligos), 55°C (for 20-base oligonucleotides), and 60°C (for 23-base oligonucleotides).

As used herein, "substantially equivalent" or "substantially similar" can refer both to nucleotide and amino acid sequences, for example a mutant sequence, that varies from a reference sequence by one or more substitutions, deletions, or additions, the net effect of which does not result in an adverse functional dissimilarity between the reference and subject sequences. Typically, such a substantially equivalent sequence varies from one of those listed herein by no more than about 35% (i.e., the number of individual residue substitutions, additions, and/or deletions in a substantially equivalent sequence, as compared to the

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corresponding reference sequence, divided by the total number of residues in the substantially equivalent sequence is about 0.35 or less). Such a sequence is said to have 65% sequence identity to the listed sequence. In one embodiment, a substantially equivalent, e.g., mutant, sequence of the invention varies from a listed sequence by no more than 30% (70% sequence identity); in a variation of this embodiment, by no more than 25% (75% sequence identity); and in a further variation of this embodiment, by no more than 20% (80% sequence identity) and in a further variation of this embodiment, by no more than 10% (90% sequence identity) and in a further variation of this embodiment, by no more that 5% (95% sequence identity). Substantially equivalent, e.g., mutant, amino acid sequences according to the invention preferably have at least 80% sequence identity with a listed amino acid sequence, more preferably at least 85% sequence identity, more preferably at least 90% sequence identity, more preferably at least 95% sequence identity, more preferably at least 98% sequence identity, and most preferably at least 99% sequence identity. Substantially equivalent nucleotide sequence of the invention can have lower percent sequence identities, taking into account, for example, the redundancy or degeneracy of the genetic code. Preferably, the nucleotide sequence has at least about 65% identity, more preferably at least about 75% identity, more preferably at least about 80% sequence identity, more preferably at least 85% sequence identity, more preferably at least 90% sequence identity, more preferably at least about 95% sequence identity, more preferably at least 98% sequence identity, and most preferably at least 99% sequence identity. For the purposes of the present invention, sequences having substantially equivalent biological activity and substantially equivalent expression characteristics are considered substantially equivalent. For the purposes of determining equivalence, truncation of the mature sequence (e.g., via a mutation which creates a spurious stop codon) should be disregarded. Sequence identity may be determined, e.g., using the Jotun Hein method (Hein, J. (1990) Methods Enzymol. 183:626-645). Identity between sequences can also be determined by other methods known in the art, e.g. by varying hybridization conditions.

The term "totipotent" refers to the capability of a cell to differentiate into all of the cell types of an adult organism.

The term "transformation" means introducing DNA into a suitable host cell so that the DNA is replicable, either as an extrachromosomal element, or by chromosomal integration. The term "transfection" refers to the taking up of an expression vector by a suitable host cell, whether or not any coding sequences are in fact expressed. The term "infection" refers to the introduction of nucleic acids into a suitable host cell by use of a virus or viral vector.

As used herein, an "uptake modulating fragment," UMF, means a series of nucleotides which mediate the uptake of a linked DNA fragment into a cell. UMFs can be readily identified using known UMFs as a target sequence or target motif with the computer-based systems described below. The presence and activity of a UMF can be confirmed by attaching the suspected UMF to a marker sequence. The resulting nucleic acid molecule is then incubated with an appropriate host under appropriate conditions and the uptake of the marker sequence is determined. As described above, a UMF will increase the frequency of uptake of a linked marker sequence.

Each of the above terms is meant to encompass all that is described for each, unless the context dictates otherwise.

3.2 NUCLEIC ACIDS OF THE INVENTION

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Nucleotide sequences of the invention are set forth in the Sequence Listing.

The isolated polynucleotides of the invention include a polynucleotide comprising the nucleotide sequences of SEO ID NO: 1-948; a polynucleotide encoding any one of the peptide sequences of SEO ID NO: 949-1896; and a polynucleotide comprising the nucleotide sequence encoding the mature protein coding sequence of the polynucleotides of any one of SEQ ID NO: 1 - 948. The polynucleotides of the present invention also include, but are not limited to, a polynucleotide that hybridizes under stringent conditions to (a) the complement of any of the nucleotides sequences of SEQ ID NO: 1-948; (b) nucleotide sequences encoding any one of the amino acid sequences set forth in the Sequence Listing as SEQ ID NO: 949-1896; (c) a polynucleotide which is an allelic variant of any polynucleotide recited above; (d) a polynucleotide which encodes a species homolog of any of the proteins recited above; or (e) a polynucleotide that encodes a polypeptide comprising a specific domain or truncation of the polypeptides of SEQ ID NO: 949-1896. Domains of interest may depend on the nature of the encoded polypeptide; e.g., domains in receptor-like polypeptides include ligand-binding, extracellular, transmembrane, or cytoplasmic domains, or combinations thereof; domains in immunoglobulin-like proteins include the variable immunoglobulin-like domains; domains in enzyme-like polypeptides include catalytic and substrate binding domains; and domains in ligand polypeptides include receptor-binding domains.

The polynucleotides of the invention include naturally occurring or wholly or partially synthetic DNA, e.g., cDNA and genomic DNA, and RNA, e.g., mRNA. The polynucleotides may include all of the coding region of the cDNA or may represent a portion of the coding region of the cDNA.

The present invention also provides genes corresponding to the cDNA sequences disclosed herein. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information for identification and/or amplification of genes in appropriate genomic libraries or other sources of genomic materials. Further 5' and 3' sequence can be obtained using methods known in the art. For example, full length cDNA or genomic DNA that corresponds to any of the polynucleotides of SEQ ID NO: 1 – 948 can be obtained by screening appropriate cDNA or genomic DNA libraries under suitable hybridization conditions using any of the polynucleotides of SEQ ID NO: 1 – 948 or a portion thereof as a probe. Alternatively, the polynucleotides of SEQ ID NO: 1 – 948 may be used as the basis for suitable primer(s) that allow identification and/or amplification of genes in appropriate genomic DNA or cDNA libraries.

The nucleic acid sequences of the invention can be assembled from ESTs and sequences (including cDNA and genomic sequences) obtained from one or more public databases, such as dbEST, gbpri, and UniGene. The EST sequences can provide identifying sequence information, representative fragment or segment information, or novel segment information for the full-length gene.

The polynucleotides of the invention also provide polynucleotides including nucleotide sequences that are substantially equivalent to the polynucleotides recited above. Polynucleotides according to the invention can have, e.g., at least about 65%, at least about 70%, at least about 75%, at least about 80%, 81%, 82%, 83%, 84%, more typically at least about 85%, 86%, 87%, 88%, 89%, more typically at least about 90%, 91%, 92%, 93%, 94%, and even more typically at least about 95%, 96%, 97%, 98%, 99% sequence identity to a polynucleotide recited above.

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Included within the scope of the nucleic acid sequences of the invention are nucleic acid sequence fragments that hybridize under stringent conditions to any of the nucleotide sequences of SEQ ID NO: 1 - 948, or complements thereof, which fragment is greater than about 5 nucleotides, preferably 7 nucleotides, more preferably greater than 9 nucleotides and most preferably greater than 17 nucleotides. Fragments of, e.g. 15, 17, or 20 nucleotides or more that are selective for (i.e. specifically hybridize to any one of the polynucleotides of the invention) are contemplated. Probes capable of specifically hybridizing to a polynucleotide can differentiate polynucleotide sequences of the invention from other polynucleotide sequences in the same family of genes or can differentiate human genes from genes of other species, and are preferably based on unique nucleotide sequences.

The sequences falling within the scope of the present invention are not limited to these specific sequences, but also include allelic and species variations thereof. Allelic and species variations can be routinely determined by comparing the sequence provided in SEQ ID NO: 1 - 948, a representative fragment thereof, or a nucleotide sequence at least 90% identical, preferably 95% identical, to SEQ ID NOs: 1 - 948 with a sequence from another isolate of the same species. Furthermore, to accommodate codon variability, the invention includes nucleic acid molecules coding for the same amino acid sequences as do the specific ORFs disclosed herein. In other words, in the coding region of an ORF, substitution of one codon for another codon that encodes the same amino acid is expressly contemplated.

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The nearest neighbor or homology result for the nucleic acids of the present invention, including SEQ ID NOs: 1 - 948, can be obtained by searching a database using an algorithm or a program. Preferably, a BLAST which stands for Basic Local Alignment Search Tool is used to search for local sequence alignments (Altshul, S.F. J Mol. Evol. 36 290-300 (1993) and Altschul S.F. et al. J. Mol. Biol. 21:403-410 (1990)). Alternatively a FASTA version 3 search against Genpept, using Fastxy algorithm.

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Species homologs (or orthologs) of the disclosed polynucleotides and proteins are also provided by the present invention. Species homologs may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from the desired species.

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The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotide which also encode proteins which are identical, homologous or related to that encoded by the polynucleotides.

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The nucleic acid sequences of the invention are further directed to sequences which encode variants of the described nucleic acids. These amino acid sequence variants may be prepared by methods known in the art by introducing appropriate nucleotide changes into a native or variant polynucleotide. There are two variables in the construction of amino acid sequence variants: the location of the mutation and the nature of the mutation. Nucleic acids encoding the amino acid sequence variants are preferably constructed by mutating the polynucleotide to encode an amino acid sequence that does not occur in nature. These nucleic acid alterations can be made at sites that differ in the nucleic acids from different species (variable positions) or in highly conserved regions (constant regions). Sites at such locations will typically be modified in series, e.g., by substituting first with conservative choices (e.g., hydrophobic amino acid to a different hydrophobic amino acid) and then with

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more distant choices (e.g., hydrophobic amino acid to a charged amino acid), and then deletions or insertions may be made at the target site. Amino acid sequence deletions generally range from about 1 to 30 residues, preferably about 1 to 10 residues, and are typically contiguous. Amino acid insertions include amino- and/or carboxyl-terminal fusions ranging in length from one to one hundred or more residues, as well as intrasequence insertions of single or multiple amino acid residues. Intrasequence insertions may range generally from about 1 to 10 amino residues, preferably from 1 to 5 residues. Examples of terminal insertions include the heterologous signal sequences necessary for secretion or for intracellular targeting in different host cells and sequences such as FLAG or poly-histidine sequences useful for purifying the expressed protein.

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In a preferred method, polynucleotides encoding the novel amino acid sequences are changed via site-directed mutagenesis. This method uses oligonucleotide sequences to alter a polynucleotide to encode the desired amino acid variant, as well as sufficient adjacent nucleotides on both sides of the changed amino acid to form a stable duplex on either side of the site of being changed. In general, the techniques of site-directed mutagenesis are well known to those of skill in the art and this technique is exemplified by publications such as, Edelman et al., DNA 2:183 (1983). A versatile and efficient method for producing site-specific changes in a polynucleotide sequence was published by Zoller and Smith. Nucleic Acids Res. 10:6487-6500 (1982). PCR may also be used to create amino acid sequence variants of the novel nucleic acids. When small amounts of template DNA are used as starting material, primer(s) that differs slightly in sequence from the corresponding region in the template DNA can generate the desired amino acid variant. PCR amplification results in a population of product DNA fragments that differ from the polynucleotide template encoding the polypeptide at the position specified by the primer. The product DNA fragments replace the corresponding region in the plasmid and this gives a polynucleotide encoding the desired amino acid variant.

A further technique for generating amino acid variants is the cassette mutagenesis technique described in Wells et al., *Gene* 34:315 (1985); and other mutagenesis techniques well known in the art, such as, for example, the techniques in Sambrook et al., supra, and *Current Protocols in Molecular Biology*, Ausubel et al. Due to the inherent degeneracy of the genetic code, other DNA sequences which encode substantially the same or a functionally equivalent amino acid sequence may be used in the practice of the invention for the cloning and expression of these novel nucleic acids. Such DNA sequences include those which are

capable of hybridizing to the appropriate novel nucleic acid sequence under stringent conditions.

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Polynucleotides encoding preferred polypeptide truncations of the invention can be used to generate polynucleotides encoding chimeric or fusion proteins comprising one or more domains of the invention and heterologous protein sequences.

The polynucleotides of the invention additionally include the complement of any of the polynucleotides recited above. The polynucleotide can be DNA (genomic, cDNA, amplified, or synthetic) or RNA. Methods and algorithms for obtaining such polynucleotides are well known to those of skill in the art and can include, for example, methods for determining hybridization conditions that can routinely isolate polynucleotides of the desired sequence identities.

In accordance with the invention, polynucleotide sequences comprising the mature protein coding sequences corresponding to any one of SEQ ID NO: 1-948, or functional equivalents thereof, may be used to generate recombinant DNA molecules that direct the expression of that nucleic acid, or a functional equivalent thereof, in appropriate host cells. Also included are the cDNA inserts of any of the clones identified herein.

A polynucleotide according to the invention can be joined to any of a variety of other nucleotide sequences by well-established recombinant DNA techniques (see Sambrook J et al. (1989) Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory, NY). Useful nucleotide sequences for joining to polynucleotides include an assortment of vectors, e.g., plasmids, cosmids, lambda phage derivatives, phagemids, and the like, that are well known in the art. Accordingly, the invention also provides a vector including a polynucleotide of the invention and a host cell containing the polynucleotide. In general, the vector contains an origin of replication functional in at least one organism, convenient restriction endonuclease sites, and a selectable marker for the host cell. Vectors according to the invention include expression vectors, replication vectors, probe generation vectors, and sequencing vectors. A host cell according to the invention can be a prokaryotic or eukaryotic cell and can be a unicellular organism or part of a multicellular organism.

The present invention further provides recombinant constructs comprising a nucleic acid having any of the nucleotide sequences of SEQ ID NOs: 1 - 948 or a fragment thereof or any other polynucleotides of the invention. In one embodiment, the recombinant constructs of the present invention comprise a vector, such as a plasmid or viral vector, into which a nucleic acid having any of the nucleotide sequences of SEQ ID NOs: 1 - 948 or a fragment thereof is inserted, in a forward or reverse orientation. In the case of a vector comprising one

of the ORFs of the present invention, the vector may further comprise regulatory sequences, including for example, a promoter, operably linked to the ORF. Large numbers of suitable vectors and promoters are known to those of skill in the art and are commercially available for generating the recombinant constructs of the present invention. The following vectors are provided by way of example. Bacterial: pBs, phagescript, PsiX174, pBluescript SK, pBs KS, pNH8a, pNH16a, pNH18a, pNH46a (Stratagene); pTrc99A, pKK223-3, pKK233-3, pDR540, pRIT5 (Pharmacia). Eukaryotic: pWLneo, pSV2cat, pOG44, PXTI, pSG (Stratagene) pSVK3, pBPV, pMSG, pSVL (Pharmacia).

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The isolated polynucleotide of the invention may be operably linked to an expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman et al., *Nucleic Acids Res.* 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, *Methods in Enzymology* 185, 537-566 (1990). As defined herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

Promoter regions can be selected from any desired gene using CAT (chloramphenicol transferase) vectors or other vectors with selectable markers. Two appropriate vectors are pKK232-8 and pCM7. Particular named bacterial promoters include lacI, lacZ, T3, T7, gpt. lambda PR, and trc. Eukaryotic promoters include CMV immediate early, HSV thymidine kinase, early and late SV40, LTRs from retrovirus, and mouse metallothionein-I. Selection of the appropriate vector and promoter is well within the level of ordinary skill in the art. Generally, recombinant expression vectors will include origins of replication and selectable markers permitting transformation of the host cell, e.g., the ampicillin resistance gene of E. coli and S. cerevisiae TRP1 gene, and a promoter derived from a highly-expressed gene to direct transcription of a downstream structural sequence. Such promoters can be derived from operons encoding glycolytic enzymes such as 3-phosphoglycerate kinase (PGK). a-factor, acid phosphatase, or heat shock proteins, among others. The heterologous structural sequence is assembled in appropriate phase with translation initiation and termination sequences, and preferably, a leader sequence capable of directing secretion of translated protein into the periplasmic space or extracellular medium. Optionally, the heterologous sequence can encode a fusion protein including an amino terminal identification peptide imparting desired characteristics, e.g., stabilization or simplified purification of expressed

recombinant product. Useful expression vectors for bacterial use are constructed by inserting a structural DNA sequence encoding a desired protein together with suitable translation initiation and termination signals in operable reading phase with a functional promoter. The vector will comprise one or more phenotypic selectable markers and an origin of replication to ensure maintenance of the vector and to, if desirable, provide amplification within the host. Suitable prokaryotic hosts for transformation include *E. coli*, *Bacillus subtilis*, *Salmonella typhimurium* and various species within the genera *Pseudomonas*, *Streptomyces*, and *Staphylococcus*, although others may also be employed as a matter of choice.

As a representative but non-limiting example, useful expression vectors for bacterial use can comprise a selectable marker and bacterial origin of replication derived from commercially available plasmids comprising genetic elements of the well known cloning vector pBR322 (ATCC 37017). Such commercial vectors include, for example, pKK223-3 (Pharmacia Fine Chemicals, Uppsala, Sweden) and GEM 1 (Promega Biotech, Madison, WI, USA). These pBR322 "backbone" sections are combined with an appropriate promoter and the structural sequence to be expressed. Following transformation of a suitable host strain and growth of the host strain to an appropriate cell density, the selected promoter is induced or derepressed by appropriate means (e.g., temperature shift or chemical induction) and cells are cultured for an additional period. Cells are typically harvested by centrifugation, disrupted by physical or chemical means, and the resulting crude extract retained for further purification.

Polynucleotides of the invention can also be used to induce immune responses. For example, as described in Fan et al., *Nat. Biotech.* 17:870-872 (1999), incorporated herein by reference, nucleic acid sequences encoding a polypeptide may be used to generate antibodies against the encoded polypeptide following topical administration of naked plasmid DNA or following injection, and preferably intra-muscular injection of the DNA. The nucleic acid sequences are preferably inserted in a recombinant expression vector and may be in the form of naked DNA.

3.3 ANTISENSE

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Another aspect of the invention pertains to isolated antisense nucleic acid molecules that are hybridizable to or complementary to the nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO: 1 - 948, or fragments, analogs or derivatives thereof. An "antisense" nucleic acid comprises a nucleotide sequence that is complementary to a "sense" nucleic acid encoding a protein, e.g., complementary to the coding strand of a

double-stranded cDNA molecule or complementary to an mRNA sequence. In specific aspects, antisense nucleic acid molecules are provided that comprise a sequence complementary to at least about 10, 25, 50, 100, 250 or 500 nucleotides or an entire coding strand, or to only a portion thereof. Nucleic acid molecules encoding fragments, homologs, derivatives and analogs of a protein of any of SEQ ID NO: 949-1896 or antisense nucleic acids complementary to a nucleic acid sequence of SEQ ID NO: 1 - 948 are additionally provided.

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In one embodiment, an antisense nucleic acid molecule is antisense to a "coding region" of the coding strand of a nucleotide sequence of the invention. The term "coding region" refers to the region of the nucleotide sequence comprising codons which are translated into amino acid residues. In another embodiment, the antisense nucleic acid molecule is antisense to a "noncoding region" of the coding strand of a nucleotide sequence of the invention. The term "noncoding region" refers to 5' and 3' sequences that flank the coding region that are not translated into amino acids (*i.e.*, also referred to as 5' and 3' untranslated regions).

Given the coding strand sequences encoding a nucleic acid disclosed herein (e.g., SEQ ID NO: 1 - 948, antisense nucleic acids of the invention can be designed according to the rules of Watson and Crick or Hoogsteen base pairing. The antisense nucleic acid molecule can be complementary to the entire coding region of an mRNA, but more preferably is an oligonucleotide that is antisense to only a portion of the coding or noncoding region of an mRNA. For example, the antisense oligonucleotide can be complementary to the region surrounding the translation start site of an mRNA. An antisense oligonucleotide can be, for example, about 5, 10, 15, 20, 25, 30, 35, 40, 45 or 50 nucleotides in length. An antisense nucleic acid of the invention can be constructed using chemical synthesis or enzymatic ligation reactions using procedures known in the art. For example, an antisense nucleic acid (e.g., an antisense oligonucleotide) can be chemically synthesized using naturally occurring nucleotides or variously modified nucleotides designed to increase the biological stability of the molecules or to increase the physical stability of the duplex formed between the antisense and sense nucleic acids, e.g., phosphorothioate derivatives and acridine substituted nucleotides can be used.

Examples of modified nucleotides that can be used to generate the antisense nucleic acid include: 5-fluorouracil, 5-bromouracil, 5-chlorouracil, 5-iodouracil, hypoxanthine, xanthine, 4-acetylcytosine, 5-(carboxyhydroxylmethyl) uracil, 5-carboxymethylaminomethyl-2-thiouridine, 5-carboxymethylaminomethyluracil, dihydrouracil, beta-D-galactosylqueosine,

inosine, N6-isopentenyladenine, 1-methylguanine, 1-methylinosine, 2,2-dimethylguanine, 2-methylguanine, 3-methylcytosine, 5-methylcytosine, N6-adenine, 7-methylguanine, 5-methylguanine, 5-methylguanine, 5-methylguanine, 5-methylguanine, 5-methylguanine, 5-methylguanine, 5-methylguanine, 5-methoxycarboxymethylguacil, 5-methoxyguacil, 2-methylthio-N6-isopentenyladenine, gracil-5-oxyacetic acid (v), wybutoxosine, pseudouracil, queosine, 2-thiocytosine, 5-methyl-2-thiogracil, 2-thiogracil, 4-thiogracil, 5-methylguacil, gracil-5-oxyacetic acid methylester, gracil-5-oxyacetic acid (v), 5-methyl-2-thiogracil, 3-(3-amino-3-N-2-carboxypropyl) gracil, (acp3)w, and 2,6-diaminopurine. Alternatively, the antisense nucleic acid can be produced biologically using an expression vector into which a nucleic acid has been subcloned in an antisense orientation (i.e., RNA transcribed from the inserted nucleic acid will be of an antisense orientation to a target nucleic acid of interest, described further in the following subsection).

The antisense nucleic acid molecules of the invention are typically administered to a subject or generated in situ such that they hybridize with or bind to cellular mRNA and/or genomic DNA encoding a protein according to the invention to thereby inhibit expression of the protein, e.g., by inhibiting transcription and/or translation. The hybridization can be by conventional nucleotide complementarity to form a stable duplex, or, for example, in the case of an antisense nucleic acid molecule that binds to DNA duplexes, through specific interactions in the major groove of the double helix. An example of a route of administration of antisense nucleic acid molecules of the invention includes direct injection at a tissue site. Alternatively, antisense nucleic acid molecules can be modified to target selected cells and then administered systemically. For example, for systemic administration, antisense molecules can be modified such that they specifically bind to receptors or antigens expressed on a selected cell surface, e.g., by linking the antisense nucleic acid molecules to peptides or antibodies that bind to cell surface receptors or antigens. The antisense nucleic acid molecules can also be delivered to cells using the vectors described herein. To achieve sufficient intracellular concentrations of antisense molecules, vector constructs in which the antisense nucleic acid molecule is placed under the control of a strong pol II or pol III promoter are preferred.

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In yet another embodiment, the antisense nucleic acid molecule of the invention is an α -anomeric nucleic acid molecule. An α -anomeric nucleic acid molecule forms specific double-stranded hybrids with complementary RNA in which, contrary to the usual α -units, the strands run parallel to each other (Gaultier *et al.* (1987) *Nucleic Acids Res* 15: 6625-6641). The antisense nucleic acid molecule can also comprise a 2'-o-methylribonucleotide (Inoue *et*

al. (1987) Nucleic Acids Res 15: 6131-6148) or a chimeric RNA -DNA analogue (Inoue et al. (1987) FEBS Lett 215: 327-330).

3.4 RIBOZYMES AND PNA MOIETIES

and Maher (1992) Bioassays 14: 807-15.

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In still another embodiment, an antisense nucleic acid of the invention is a ribozyme. Ribozymes are catalytic RNA molecules with ribonuclease activity that are capable of cleaving a single-stranded nucleic acid, such as an mRNA, to which they have a complementary region. Thus, ribozymes (e.g., hammerhead ribozymes (described in Haselhoff and Gerlach (1988) Nature 334:585-591)) can be used to catalytically cleave mRNA transcripts to thereby inhibit translation of an mRNA. A ribozyme having specificity for a nucleic acid of the invention can be designed based upon the nucleotide sequence of a DNA disclosed herein (i.e., SEQ ID NO: 1 - 948). For example, a derivative of Tetrahymena L-19 IVS RNA can be constructed in which the nucleotide sequence of the active site is complementary to the nucleotide sequence to be cleaved in a SECX-encoding mRNA. See, e.g., Cech et al. U.S. Pat. No. 4,987,071; and Cech et al. U.S. Pat. No. 5,116,742. Alternatively, SECX mRNA can be used to select a catalytic RNA having a specific ribonuclease activity from a pool of RNA molecules. See, e.g., Bartel et al., (1993) Science 261:1411-1418.

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Alternatively, gene expression can be inhibited by targeting nucleotide sequences complementary to the regulatory region (e.g., promoter and/or enhancers) to form triple helical structures that prevent transcription of the gene in target cells. See generally, Helene. (1991) Anticancer Drug Des. 6: 569-84; Helene. et al. (1992) Ann. N.Y. Acad. Sci. 660:27-36;

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In various embodiments, the nucleic acids of the invention can be modified at the base moiety, sugar moiety or phosphate backbone to improve, e.g., the stability, hybridization, or solubility of the molecule. For example, the deoxyribose phosphate backbone of the nucleic acids can be modified to generate peptide nucleic acids (see Hyrup et al. (1996) Bioorg Med Chem 4: 5-23). As used herein, the terms "peptide nucleic acids" or "PNAs" refer to nucleic acid mimics, e.g., DNA mimics, in which the deoxyribose phosphate backbone is replaced by a pseudopeptide backbone and only the four natural nucleobases are retained. The neutral backbone of PNAs has been shown to allow for specific hybridization to DNA and RNA under conditions of low ionic strength. The synthesis of PNA oligomers can be performed using standard solid phase peptide synthesis protocols as described in Hyrup et al. (1996) above; Perry-O'Keefe et al. (1996) PNAS 93: 14670-675.

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PNAs of the invention can be used in therapeutic and diagnostic applications. For example, PNAs can be used as antisense or antigene agents for sequence-specific modulation of gene expression by, e.g., inducing transcription or translation arrest or inhibiting replication. PNAs of the invention can also be used, e.g., in the analysis of single base pair mutations in a gene by, e.g., PNA directed PCR clamping; as artificial restriction enzymes when used in combination with other enzymes, e.g., S1 nucleases (Hyrup B. (1996) above); or as probes or primers for DNA sequence and hybridization (Hyrup et al. (1996), above; Perry-O'Keefe (1996), above).

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In another embodiment, PNAs of the invention can be modified, e.g., to enhance their stability or cellular uptake, by attaching lipophilic or other helper groups to PNA, by the formation of PNA-DNA chimeras, or by the use of liposomes or other techniques of drug delivery known in the art. For example, PNA-DNA chimeras can be generated that may combine the advantageous properties of PNA and DNA. Such chimeras allow DNA recognition enzymes, e.g., RNase H and DNA polymerases, to interact with the DNA portion while the PNA portion would provide high binding affinity and specificity. PNA-DNA chimeras can be linked using linkers of appropriate lengths selected in terms of base stacking, number of bonds between the nucleobases, and orientation (Hyrup (1996) above). The synthesis of PNA-DNA chimeras can be performed as described in Hyrup (1996) above and Finn et al. (1996) Nucl Acids Res 24: 3357-63. For example, a DNA chain can be synthesized on a solid support using standard phosphoramidite coupling chemistry, and modified nucleoside analogs, e.g., 5'-(4-methoxytrityl)amino-5'-deoxy-thymidine phosphoramidite, can be used between the PNA and the 5' end of DNA (Mag et al. (1989) Nucl Acid Res 17: 5973-88). PNA monomers are then coupled in a stepwise manner to produce a chimeric molecule with a 5' PNA segment and a 3' DNA segment (Finn et al. (1996) above). Alternatively, chimeric molecules can be synthesized with a 5' DNA segment and a 3' PNA segment. See, Petersen et al. (1975) Bioorg Med Chem Lett 5: 1119-11124.

In other embodiments, the oligonucleotide may include other appended groups such as peptides (e.g., for targeting host cell receptors in vivo), or agents facilitating transport across the cell membrane (see, e.g., Letsinger et al., 1989, Proc. Natl. Acad. Sci. U.S.A. 86:6553-6556; Lemaitre et al., 1987, Proc. Natl. Acad. Sci. 84:648-652; PCT Publication No. W088/09810) or the blood-brain barrier (see, e.g., PCT Publication No. W089/10134). In addition, oligonucleotides can be modified with hybridization triggered cleavage agents (See, e.g., Krol et al., 1988, BioTechniques 6:958-976) or intercalating agents. (See, e.g., Zon, 1988, Pharm. Res. 5: 539-549). To this end, the oligonucleotide may be conjugated to

another molecule, e.g., a peptide, a hybridization triggered cross-linking agent, a transport agent, a hybridization-triggered cleavage agent, etc.

3.5 HOSTS

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The present invention further provides host cells genetically engineered to contain the polynucleotides of the invention. For example, such host cells may contain nucleic acids of the invention introduced into the host cell using known transformation, transfection or infection methods. The present invention still further provides host cells genetically engineered to express the polynucleotides of the invention, wherein such polynucleotides are in operative association with a regulatory sequence heterologous to the host cell which drives expression of the polynucleotides in the cell.

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Knowledge of nucleic acid sequences allows for modification of cells to permit, or increase, expression of endogenous polypeptide. Cells can be modified (e.g., by homologous recombination) to provide increased polypeptide expression by replacing, in whole or in part, the naturally occurring promoter with all or part of a heterologous promoter so that the cells express the polypeptide at higher levels. The heterologous promoter is inserted in such a manner that it is operatively linked to the encoding sequences. See, for example, PCT International Publication No. WO94/12650, PCT International Publication No. WO92/20808, and PCT International Publication No. WO91/09955. It is also contemplated that, in addition to heterologous promoter DNA, amplifiable marker DNA (e.g., ada, dhfr, and the multifunctional CAD gene which encodes carbamyl phosphate synthase, aspartate transcarbamylase, and dihydroorotase) and/or intron DNA may be inserted along with the heterologous promoter DNA. If linked to the coding sequence, amplification of the marker DNA by standard selection methods results in co-amplification of the desired protein coding sequences in the cells.

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The host cell can be a higher eukaryotic host cell, such as a mammalian cell, a lower eukaryotic host cell, such as a yeast cell, or the host cell can be a prokaryotic cell, such as a bacterial cell. Introduction of the recombinant construct into the host cell can be effected by calcium phosphate transfection, DEAE, dextran mediated transfection, or electroporation (Davis, L. et al., *Basic Methods in Molecular Biology* (1986)). The host cells containing one of the polynucleotides of the invention, can be used in conventional manners to produce the gene product encoded by the isolated fragment (in the case of an ORF) or can be used to produce a heterologous protein under the control of the EMF.

Any host/vector system can be used to express one or more of the ORFs of the present invention. These include, but are not limited to, eukaryotic hosts such as HeLa cells, Cv-1 cell, COS cells, 293 cells, and Sf9 cells, as well as prokaryotic host such as E. coli and B. subtilis. The most preferred cells are those which do not normally express the particular polypeptide or protein or which expresses the polypeptide or protein at low natural level. Mature proteins can be expressed in mammalian cells, yeast, bacteria, or other cells under the control of appropriate promoters. Cell-free translation systems can also be employed to produce such proteins using RNAs derived from the DNA constructs of the present invention. Appropriate cloning and expression vectors for use with prokaryotic and eukaryotic hosts are described by Sambrook, et al., in Molecular Cloning: A Laboratory Manual, Second Edition, Cold Spring Harbor, New York (1989), the disclosure of which is hereby incorporated by reference.

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Various mammalian cell culture systems can also be employed to express recombinant protein. Examples of mammalian expression systems include the COS-7 lines of monkey kidney fibroblasts, described by Gluzman, Cell 23:175 (1981). Other cell lines capable of expressing a compatible vector are, for example, the C127, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from in vitro culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells. Mammalian expression vectors will comprise an origin of replication, a suitable promoter and also any necessary ribosome binding sites, polyadenylation site, splice donor and acceptor sites, transcriptional termination sequences, and 5' flanking nontranscribed sequences. DNA sequences derived from the SV40 viral genome, for example, SV40 origin, early promoter, enhancer, splice, and polyadenylation sites may be used to provide the required nontranscribed genetic elements. Recombinant polypeptides and proteins produced in bacterial culture are usually isolated by initial extraction from cell pellets, followed by one or more salting-out, aqueous ion exchange or size exclusion chromatography steps. Protein refolding steps can be used, as necessary, in completing configuration of the mature protein. Finally, high performance liquid chromatography (HPLC) can be employed for final purification steps. Microbial cells employed in expression of proteins can be disrupted by any convenient method, including freeze-thaw cycling, sonication, mechanical disruption, or use of cell lysing agents.

Alternatively, it may be possible to produce the protein in lower eukaryotes such as yeast or insects or in prokaryotes such as bacteria. Potentially suitable yeast strains include

Saccharomyces cerevisiae, Schizosaccharomyces pombe, Kluyveromyces strains, Candida, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include Escherichia coli, Bacillus subtilis, Salmonella typhimurium, or any bacterial strain capable of expressing heterologous proteins. If the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

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In another embodiment of the present invention, cells and tissues may be engineered to express an endogenous gene comprising the polynucleotides of the invention under the control of inducible regulatory elements, in which case the regulatory sequences of the endogenous gene may be replaced by homologous recombination. As described herein, gene targeting can be used to replace a gene's existing regulatory region with a regulatory sequence isolated from a different gene or a novel regulatory sequence synthesized by genetic engineering methods. Such regulatory sequences may be comprised of promoters, enhancers, scaffold-attachment regions, negative regulatory elements, transcriptional initiation sites, regulatory protein binding sites or combinations of said sequences. Alternatively, sequences which affect the structure or stability of the RNA or protein produced may be replaced, removed, added, or otherwise modified by targeting. These sequence include polyadenylation signals, mRNA stability elements, splice sites, leader sequences for enhancing or modifying transport or secretion properties of the protein, or other sequences which alter or improve the function or stability of protein or RNA molecules.

The targeting event may be a simple insertion of the regulatory sequence, placing the gene under the control of the new regulatory sequence, e.g., inserting a new promoter or enhancer or both upstream of a gene. Alternatively, the targeting event may be a simple deletion of a regulatory element, such as the deletion of a tissue-specific negative regulatory element. Alternatively, the targeting event may replace an existing element; for example, a tissue-specific enhancer can be replaced by an enhancer that has broader or different cell-type specificity than the naturally occurring elements. Here, the naturally occurring sequences are deleted and new sequences are added. In all cases, the identification of the targeting event may be facilitated by the use of one or more selectable marker genes that are contiguous with the targeting DNA, allowing for the selection of cells in which the exogenous DNA has integrated into the host cell genome. The identification of the targeting event may also be facilitated by the use of one or more marker genes exhibiting the property of negative selection, such that the negatively selectable marker is linked to the exogenous DNA, but

configured such that the negatively selectable marker flanks the targeting sequence, and such that a correct homologous recombination event with sequences in the host cell genome does not result in the stable integration of the negatively selectable marker. Markers useful for this purpose include the Herpes Simplex Virus thymidine kinase (TK) gene or the bacterial xanthine-guanine phosphoribosyl-transferase (gpt) gene.

The gene targeting or gene activation techniques which can be used in accordance with this aspect of the invention are more particularly described in U.S. Patent No. 5,272,071 to Chappel; U.S. Patent No. 5,578,461 to Sherwin et al.; International Application No. PCT/US92/09627 (WO93/09222) by Selden et al.; and International Application No. PCT/US90/06436 (WO91/06667) by Skoultchi et al., each of which is incorporated by reference herein in its entirety.

3.6 POLYPEPTIDES OF THE INVENTION

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The isolated polypeptides of the invention include, but are not limited to, a polypeptide comprising: the amino acid sequences set forth as any one of SEO ID NO: 949-1896 or an amino acid sequence encoded by any one of the nucleotide sequences SEO ID NOs: 1 - 948 or the corresponding full length or mature protein. Polypeptides of the invention also include polypeptides preferably with biological or immunological activity that are encoded by: (a) a polynucleotide having any one of the nucleotide sequences set forth in SEO ID NOs: 1-948 or (b) polynucleotides encoding any one of the amino acid sequences set forth as SEQ ID NO: 949-1896 or (c) polynucleotides that hybridize to the complement of the polynucleotides of either (a) or (b) under stringent hybridization conditions. The invention also provides biologically active or immunologically active variants of any of the amino acid sequences set forth as SEQ ID NO: 949-1896 or the corresponding full length or mature protein; and "substantial equivalents" thereof (e.g., with at least about 65%, at least about 70%, at least about 75%, at least about 80%, at least about 85%, 86%, 87%, 88%, 89%, at least about 90%, 91%, 92%, 93%, 94%, typically at least about 95%, 96%, 97%, more typically at least about 98%, or most typically at least about 99% amino acid identity) that retain biological activity. Polypeptides encoded by allelic variants may have a similar. increased, or decreased activity compared to polypeptides comprising SEO ID NO: 949-1896.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention. Fragments of the protein may be in linear form or they may be cyclized using known methods, for example, as described in H. U. Saragovi, et al., Bio/Technology 10, 773-778 (1992) and in R. S.

McDowell, et al., J. Amer. Chem. Soc. 114, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing the valency of protein binding sites.

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The present invention also provides both full-length and mature forms (for example, without a signal sequence or precursor sequence) of the disclosed proteins. The protein coding sequence is identified in the sequence listing by translation of the disclosed nucleotide sequences. The mature form of such protein may be obtained by expression of a full-length polynucleotide in a suitable mammalian cell or other host cell. The sequence of the mature form of the protein is also determinable from the amino acid sequence of the full-length form. Where proteins of the present invention are membrane bound, soluble forms of the proteins are also provided. In such forms, part or all of the regions causing the proteins to be membrane bound are deleted so that the proteins are fully secreted from the cell in which they are expressed.

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Protein compositions of the present invention may further comprise an acceptable carrier, such as a hydrophilic, e.g., pharmaceutically acceptable, carrier.

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The present invention further provides isolated polypeptides encoded by the nucleic acid fragments of the present invention or by degenerate variants of the nucleic acid fragments of the present invention. By "degenerate variant" is intended nucleotide fragments which differ from a nucleic acid fragment of the present invention (e.g., an ORF) by nucleotide sequence but, due to the degeneracy of the genetic code, encode an identical polypeptide sequence. Preferred nucleic acid fragments of the present invention are the ORFs that encode proteins.

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A variety of methodologies known in the art can be utilized to obtain any one of the isolated polypeptides or proteins of the present invention. At the simplest level, the amino acid sequence can be synthesized using commercially available peptide synthesizers. The synthetically-constructed protein sequences, by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. This technique is particularly useful in producing small peptides and fragments of larger polypeptides. Fragments are useful, for example, in generating antibodies against the native polypeptide. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

The polypeptides and proteins of the present invention can alternatively be purified from cells which have been altered to express the desired polypeptide or protein. As used herein, a cell is said to be altered to express a desired polypeptide or protein when the cell, through genetic manipulation, is made to produce a polypeptide or protein which it normally does not produce or which the cell normally produces at a lower level. One skilled in the art can readily adapt procedures for introducing and expressing either recombinant or synthetic sequences into eukaryotic or prokaryotic cells in order to generate a cell which produces one of the polypeptides or proteins of the present invention.

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The invention also relates to methods for producing a polypeptide comprising growing a culture of host cells of the invention in a suitable culture medium, and purifying the protein from the cells or the culture in which the cells are grown. For example, the methods of the invention include a process for producing a polypeptide in which a host cell containing a suitable expression vector that includes a polynucleotide of the invention is cultured under conditions that allow expression of the encoded polypeptide. The polypeptide can be recovered from the culture, conveniently from the culture medium, or from a lysate prepared from the host cells and further purified. Preferred embodiments include those in which the protein produced by such process is a full length or mature form of the protein.

In an alternative method, the polypeptide or protein is purified from bacterial cells which naturally produce the polypeptide or protein. One skilled in the art can readily follow known methods for isolating polypeptides and proteins in order to obtain one of the isolated polypeptides or proteins of the present invention. These include, but are not limited to, immunochromatography, HPLC, size-exclusion chromatography, ion-exchange chromatography, and immuno-affinity chromatography. See, e.g., Scopes, Protein Purification: Principles and Practice, Springer-Verlag (1994); Sambrook, et al., in Molecular Cloning: A Laboratory Manual; Ausubel et al., Current Protocols in Molecular Biology. Polypeptide fragments that retain biological/immunological activity include fragments comprising greater than about 100 amino acids, or greater than about 200 amino acids, and fragments that encode specific protein domains.

The purified polypeptides can be used in *in vitro* binding assays which are well known in the art to identify molecules which bind to the polypeptides. These molecules include but are not limited to, for e.g., small molecules, molecules from combinatorial libraries, antibodies or other proteins. The molecules identified in the binding assay are then tested for antagonist or agonist activity in *in vivo* tissue culture or animal models that are well

known in the art. In brief, the molecules are titrated into a plurality of cell cultures or animals and then tested for either cell/animal death or prolonged survival of the animal/cells.

In addition, the peptides of the invention or molecules capable of binding to the peptides may be complexed with toxins, e.g., ricin or cholera, or with other compounds that are toxic to cells. The toxin-binding molecule complex is then targeted to a tumor or other cell by the specificity of the binding molecule for SEQ ID NO: 949-1896.

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

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The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications, in the peptide or DNA sequence, can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or deletion are well known to those skilled in the art (see, e.g., U.S. Pat. No. 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein. Regions of the protein that are important for the protein function can be determined by various methods known in the art including the alanine-scanning method which involved systematic substitution of single or strings of amino acids with alanine, followed by testing the resulting alanine-containing variant for biological activity. This type of analysis determines the importance of the substituted amino acid(s) in biological activity. Regions of the protein that are important for protein function may be determined by the eMATRIX program.

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Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and are useful for screening or other immunological methodologies may also be easily made by those skilled in the art given the disclosures herein. Such modifications are encompassed by the present invention.

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The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from, e.g., Invitrogen, San Diego,

Calif., U.S.A. (the MaxBat[™] kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

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The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (i.e., from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin-toyopearlTM or Cibacrom blue 3GA SepharoseTM; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

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Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX), or as a His tag. Kits for expression and purification of such fusion proteins are commercially available from New England BioLab (Beverly, Mass.), Pharmacia (Piscataway, N.J.) and Invitrogen, respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("FLAG®") is commercially available from Kodak (New Haven, Conn.).

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Finally, one or more reverse-phase high performance liquid chromatography (RP-HPLC) steps employing hydrophobic RP-HPLC media, e.g., silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

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The polypeptides of the invention include analogs (variants). This embraces fragments, as well as peptides in which one or more amino acids has been deleted, inserted, or substituted. Also, analogs of the polypeptides of the invention embrace fusions of the polypeptides or modifications of the polypeptides of the invention, wherein the polypeptide or analog is fused to another moiety or moieties, e.g., targeting moiety or another therapeutic agent. Such analogs may exhibit improved properties such as activity and/or stability.

Examples of moieties which may be fused to the polypeptide or an analog include, for example, targeting moieties which provide for the delivery of polypeptide to pancreatic cells, e.g., antibodies to pancreatic cells, antibodies to immune cells such as T-cells, monocytes, dendritic cells, granulocytes, etc., as well as receptor and ligands expressed on pancreatic or immune cells. Other moieties which may be fused to the polypeptide include therapeutic agents which are used for treatment, for example, immunosuppressive drugs such as cyclosporin, SK506, azathioprine, CD3 antibodies and steroids. Also, polypeptides may be fused to immune modulators, and other cytokines such as alpha or beta interferon.

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3.6.1 DETERMINING POLYPEPTIDE AND POLYNUCLEOTIDE IDENTITY AND SIMILARITY

Preferred identity and/or similarity are designed to give the largest match between the sequences tested. Methods to determine identity and similarity are codified in computer programs including, but are not limited to, the GCG program package, including GAP (Devereux, J., et al., Nucleic Acids Research 12(1):387 (1984); Genetics Computer Group, University of Wisconsin, Madison, WI), BLASTP, BLASTN, BLASTX, FASTA (Altschul, S.F. et al., J. Molec. Biol. 215:403-410 (1990), PSI-BLAST (Altschul S.F. et al., Nucleic Acids Res. vol. 25, pp. 3389-3402, herein incorporated by reference), eMatrix software (Wu et al., J. Comp. Biol., Vol. 6, pp. 219-235 (1999), herein incorporated by reference), eMotif software (Nevill-Manning et al, ISMB-97, Vol. 4, pp. 202-209, herein incorporated by reference), pFam software (Sonnhammer et al., Nucleic Acids Res., Vol. 26(1), pp. 320-322 (1998), herein incorporated by reference) and the Kyte-Doolittle hydrophobocity prediction algorithm (J. Mol Biol, 157, pp. 105-31 (1982), incorporated herein by reference). The BLAST programs are publicly available from the National Center for Biotechnology Information (NCBI) and other sources (BLAST Manual, Altschul, S., et al. NCB NLM NIH Bethesda, MD 20894; Altschul, S., et al., J. Mol. Biol. 215:403-410 (1990).

3.7 CHIMERIC AND FUSION PROTEINS

The invention also provides chimeric or fusion proteins. As used herein, a "chimeric protein" or "fusion protein" comprises a polypeptide of the invention operatively linked to another polypeptide. Within a fusion protein the polypeptide according to the invention can correspond to all or a portion of a protein according to the invention. In one embodiment, a fusion protein comprises at least one biologically active portion of a protein according to the invention. In another embodiment, a fusion protein comprises at least two biologically active

portions of a protein according to the invention. Within the fusion protein, the term "operatively linked" is intended to indicate that the polypeptide according to the invention and the other polypeptide are fused in-frame to each other. The polypeptide can be fused to the N-terminus or C-terminus, or to the middle.

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For example, in one embodiment a fusion protein comprises a polypeptide according to the invention operably linked to the extracellular domain of a second protein.

In another embodiment, the fusion protein is a GST-fusion protein in which the polypeptide sequences of the invention are fused to the C-terminus of the GST (i.e., glutathione S-transferase) sequences.

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In another embodiment, the fusion protein is an immunoglobulin fusion protein in which the polypeptide sequences according to the invention comprise one or more domains fused to sequences derived from a member of the immunoglobulin protein family. The immunoglobulin fusion proteins of the invention can be incorporated into pharmaceutical compositions and administered to a subject to inhibit an interaction between a ligand and a protein of the invention on the surface of a cell, to thereby suppress signal transduction in vivo. The immunoglobulin fusion proteins can be used to affect the bioavailability of a cognate ligand. Inhibition of the ligand/protein interaction may be useful therapeutically for both the treatment of proliferative and differentiative disorders, e.g., cancer as well as modulating (e.g., promoting or inhibiting) cell survival. Moreover, the immunoglobulin fusion proteins of the invention can be used as immunogens to produce antibodies in a subject, to purify ligands, and in screening assays to identify molecules that inhibit the interaction of a polypeptide of the invention with a ligand.

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A chimeric or fusion protein of the invention can be produced by standard recombinant DNA techniques. For example, DNA fragments coding for the different polypeptide sequences are ligated together in-frame in accordance with conventional techniques, e.g., by employing blunt-ended or stagger-ended termini for ligation, restriction enzyme digestion to provide for appropriate termini, filling-in of cohesive ends as appropriate, alkaline phosphatase treatment to avoid undesirable joining, and enzymatic ligation. In another embodiment, the fusion gene can be synthesized by conventional techniques including automated DNA synthesizers. Alternatively, PCR amplification of gene fragments can be carried out using anchor primers that give rise to complementary overhangs between two consecutive gene fragments that can subsequently be annealed and reamplified to generate a chimeric gene sequence (see, for example, Ausubel et al. (eds.) CURRENT PROTOCOLS IN MOLECULAR BIOLOGY, John Wiley & Sons, 1992). Moreover, many

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expression vectors are commercially available that already encode a fusion moiety (e.g., a GST polypeptide). A nucleic acid encoding a polypeptide of the invention can be cloned into such an expression vector such that the fusion moiety is linked in-frame to the protein of the invention.

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3.8 GENE THERAPY

Mutations in the polynucleotides of the invention gene may result in loss of normal function of the encoded protein. The invention thus provides gene therapy to restore normal activity of the polypeptides of the invention; or to treat disease states involving polypeptides of the invention. Delivery of a functional gene encoding polypeptides of the invention to appropriate cells is effected ex vivo, in situ, or in vivo by use of vectors, and more particularly viral vectors (e.g., adenovirus, adeno-associated virus, or a retrovirus), or ex vivo by use of physical DNA transfer methods (e.g., liposomes or chemical treatments). See, for example, Anderson, Nature, supplement to vol. 392, no. 6679, pp.25-20 (1998). For additional reviews of gene therapy technology see Friedmann, Science, 244: 1275-1281 (1989); Verma, Scientific American: 68-84 (1990); and Miller, Nature, 357: 455-460 (1992). Introduction of any one of the nucleotides of the present invention or a gene encoding the polypeptides of the present invention can also be accomplished with extrachromosomal substrates (transient expression) or artificial chromosomes (stable expression). Cells may also be cultured ex vivo in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced in vivo for therapeutic purposes. Alternatively, it is contemplated that in other human disease states, preventing the expression of or inhibiting the activity of polypeptides of the invention will be useful in treating the disease states. It is contemplated that antisense therapy or gene therapy could be applied to negatively regulate the expression of polypeptides of the invention.

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Other methods inhibiting expression of a protein include the introduction of antisense molecules to the nucleic acids of the present invention, their complements, or their translated RNA sequences, by methods known in the art. Further, the polypeptides of the present invention can be inhibited by using targeted deletion methods, or the insertion of a negative regulatory element such as a silencer, which is tissue specific.

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The present invention still further provides cells genetically engineered *in vivo* to express the polynucleotides of the invention, wherein such polynucleotides are in operative association with a regulatory sequence heterologous to the host cell which drives expression of the

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polynucleotides in the cell. These methods can be used to increase or decrease the expression of the polynucleotides of the present invention.

Knowledge of DNA sequences provided by the invention allows for modification of cells to permit, increase, or decrease, expression of endogenous polypeptide. Cells can be modified (e.g., by homologous recombination) to provide increased polypeptide expression by replacing, in whole or in part, the naturally occurring promoter with all or part of a heterologous promoter so that the cells express the protein at higher levels. The heterologous promoter is inserted in such a manner that it is operatively linked to the desired protein encoding sequences. See, for example, PCT International Publication No. WO 94/12650, PCT International Publication No. WO 91/09955. It is also contemplated that, in addition to heterologous promoter DNA, amplifiable marker DNA (e.g., ada, dhfr, and the multifunctional CAD gene which encodes carbamyl phosphate synthase, aspartate transcarbamylase, and dihydroorotase) and/or intron DNA may be inserted along with the heterologous promoter DNA. If linked to the desired protein coding sequence, amplification of the marker DNA by standard selection methods results in co-amplification of the desired protein coding sequences in the cells.

In another embodiment of the present invention, cells and tissues may be engineered to express an endogenous gene comprising the polynucleotides of the invention under the control of inducible regulatory elements, in which case the regulatory sequences of the endogenous gene may be replaced by homologous recombination. As described herein, gene targeting can be used to replace a gene's existing regulatory region with a regulatory sequence isolated from a different gene or a novel regulatory sequence synthesized by genetic engineering methods. Such regulatory sequences may be comprised of promoters, enhancers, scaffold-attachment regions, negative regulatory elements, transcriptional initiation sites, regulatory protein binding sites or combinations of said sequences. Alternatively, sequences which affect the structure or stability of the RNA or protein produced may be replaced, removed, added, or otherwise modified by targeting. These sequences include polyadenylation signals, mRNA stability elements, splice sites, leader sequences for enhancing or modifying transport or secretion properties of the protein, or other sequences which alter or improve the function or stability of protein or RNA molecules.

The targeting event may be a simple insertion of the regulatory sequence, placing the gene under the control of the new regulatory sequence, e.g., inserting a new promoter or enhancer or both upstream of a gene. Alternatively, the targeting event may be a simple deletion of a regulatory element, such as the deletion of a tissue-specific negative regulatory element.

Alternatively, the targeting event may replace an existing element; for example, a tissue-specific enhancer can be replaced by an enhancer that has broader or different cell-type specificity than the naturally occurring elements. Here, the naturally occurring sequences are deleted and new sequences are added. In all cases, the identification of the targeting event may be facilitated by the use of one or more selectable marker genes that are contiguous with the targeting DNA, allowing for the selection of cells in which the exogenous DNA has integrated into the cell genome. The identification of the targeting event may also be facilitated by the use of one or more marker genes exhibiting the property of negative selection, such that the negatively selectable marker is linked to the exogenous DNA, but configured such that the negatively selectable marker flanks the targeting sequence, and such that a correct homologous recombination event with sequences in the host cell genome does not result in the stable integration of the negatively selectable marker. Markers useful for this purpose include the Herpes Simplex Virus thymidine kinase (TK) gene or the bacterial xanthine-guanine phosphoribosyl-transferase (gpt) gene.

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The gene targeting or gene activation techniques which can be used in accordance with this aspect of the invention are more particularly described in U.S. Patent No. 5,272,071 to Chappel; U.S. Patent No. 5,578,461 to Sherwin et al.; International Application No. PCT/US92/09627 (WO93/09222) by Selden et al.; and International Application No. PCT/US90/06436 (WO91/06667) by Skoultchi et al., each of which is incorporated by reference herein in its entirety.

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3.9 TRANSGENIC ANIMALS

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In preferred methods to determine biological functions of the polypeptides of the invention in vivo, one or more genes provided by the invention are either over expressed or inactivated in the germ line of animals using homologous recombination [Capecchi, Science 244:1288-1292 (1989)]. Animals in which the gene is over expressed, under the regulatory control of exogenous or endogenous promoter elements, are known as transgenic animals. Animals in which an endogenous gene has been inactivated by homologous recombination are referred to as "knockout" animals. Knockout animals, preferably non-human mammals, can be prepared as described in U.S. Patent No. 5,557,032, incorporated herein by reference. Transgenic animals are useful to determine the roles polypeptides of the invention play in biological processes, and preferably in disease states. Transgenic animals are useful as model systems to identify compounds that modulate lipid metabolism. Transgenic animals,

preferably non-human mammals, are produced using methods as described in U.S. Patent No 5,489,743 and PCT Publication No. WO94/28122, incorporated herein by reference.

Transgenic animals can be prepared wherein all or part of a promoter of the polynucleotides of the invention is either activated or inactivated to alter the level of expression of the polypeptides of the invention. Inactivation can be carried out using homologous recombination methods described above. Activation can be achieved by supplementing or even replacing the homologous promoter to provide for increased protein expression. The homologous promoter can be supplemented by insertion of one or more heterologous enhancer elements known to confer promoter activation in a particular tissue.

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The polynucleotides of the present invention also make possible the development, through, e.g., homologous recombination or knock out strategies, of animals that fail to express polypeptides of the invention or that express a variant polypeptide. Such animals are useful as models for studying the *in vivo* activities of polypeptide as well as for studying modulators of the polypeptides of the invention.

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In preferred methods to determine biological functions of the polypeptides of the invention *in vivo*, one or more genes provided by the invention are either over expressed or inactivated in the germ line of animals using homologous recombination [Capecchi, Science 244:1288-1292 (1989)]. Animals in which the gene is over expressed, under the regulatory control of exogenous or endogenous promoter elements, are known as transgenic animals. Animals in which an endogenous gene has been inactivated by homologous recombination are referred to as "knockout" animals. Knockout animals, preferably non-human mammals, can be prepared as described in U.S. Patent No. 5,557,032, incorporated herein by reference. Transgenic animals are useful to determine the roles polypeptides of the invention play in biological processes, and preferably in disease states. Transgenic animals are useful as model systems to identify compounds that modulate lipid metabolism. Transgenic animals, preferably non-human mammals, are produced using methods as described in U.S. Patent No 5,489,743 and PCT Publication No. WO94/28122, incorporated herein by reference.

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Transgenic animals can be prepared wherein all or part of the polynucleotides of the invention promoter is either activated or inactivated to alter the level of expression of the polypeptides of the invention. Inactivation can be carried out using homologous recombination methods described above. Activation can be achieved by supplementing or even replacing the homologous promoter to provide for increased protein expression. The homologous promoter can be supplemented by insertion of one or more heterologous enhancer elements known to confer promoter activation in a particular tissue.

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3.10 USES AND BIOLOGICAL ACTIVITY

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The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified herein. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA). The mechanism underlying the particular condition or pathology will dictate whether the polypeptides of the invention, the polynucleotides of the invention or modulators (activators or inhibitors) thereof would be beneficial to the subject in need of treatment. Thus, "therapeutic compositions of the invention" include compositions comprising isolated polynucleotides (including recombinant DNA molecules, cloned genes and degenerate variants thereof) or polypeptides of the invention (including full length protein, mature protein and truncations or domains thereof), or compounds and other substances that modulate the overall activity of the target gene products, either at the level of target gene/protein expression or target protein activity. Such modulators include polypeptides. analogs, (variants), including fragments and fusion proteins, antibodies and other binding proteins; chemical compounds that directly or indirectly activate or inhibit the polypeptides of the invention (identified, e.g., via drug screening assays as described herein); antisense polynucleotides and polynucleotides suitable for triple helix formation; and in particular antibodies or other binding partners that specifically recognize one or more epitopes of the polypeptides of the invention.

The polypeptides of the present invention may likewise be involved in cellular activation or in one of the other physiological pathways described herein.

3.10.1 RESEARCH USES AND UTILITIES

The polynucleotides provided by the present invention can be used by the research community for various purposes. The polynucleotides can be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA

sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtract-out" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The polypeptides provided by the present invention can similarly be used in assays to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding polypeptide is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E. F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S. L. and A. R. Kimmel eds., 1987.

3.10.2 NUTRITIONAL USES

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Polynucleotides and polypeptides of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the polypeptide or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions, suspensions or capsules. In the case of microorganisms, the

polypeptide or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

3.10.3 CYTOKINE AND CELL PROLIFERATION/DIFFERENTIATION ACTIVITY

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A polypeptide of the present invention may exhibit activity relating to cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations. A polynucleotide of the invention can encode a polypeptide exhibiting such attributes. Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor-dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of therapeutic compositions of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D, DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+(preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e, CMK, HUVEC, and Caco. Therapeutic compositions of the invention can be used in the following:

Assays for T-cell or thymocyte proliferation include without limitation those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A. M. Kruisbeek, D. H. Margulies, E. M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, *In Vitro* assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol. 137:3494-3500, 1986; Bertagnolli et al., J. Immunol. 145:1706-1712, 1990; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Bertagnolli, et al., I. Immunol. 149:3778-3783, 1992; Bowman et al., I. Immunol. 152:1756-1761, 1994.

Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: Polyclonal T cell stimulation, Kruisbeek, A. M. and Shevach, E. M. In Current Protocols in Immunology. J. E. e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons, Toronto. 1994; and Measurement of mouse and human interleukin-γ, Schreiber, R. D. In Current Protocols in Immunology. J. E. e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

Assays for proliferation and differentiation of hematopoietic and lymphopoietic cells include, without limitation, those described in: Measurement of Human and Murine Interleukin 2 and Interleukin 4, Bottomly, K., Davis, L. S. and Lipsky, P. E. In Current

Protocols in Immunology. J. E. e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., J. Exp. Med. 173:1205-1211, 1991; Moreau et al., Nature 336:690-692, 1988; Greenberger et al., Proc. Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6--Nordan, R. In Current Protocols in Immunology. J. E. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Aced. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11--Bennett, F., Giannotti, J., Clark, S. C. and Turner, K. J. In Current Protocols in Immunology. J. E. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9--Ciarletta, A., Giannotti, J., Clark, S. C. and Turner, K. J. In Current Protocols in Immunology. J. E. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.

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Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A. M. Kruisbeek, D. H. Margulies, E. M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, *In Vitro* assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immunol. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

3.10.4 STEM CELL GROWTH FACTOR ACTIVITY

A polypeptide of the present invention may exhibit stem cell growth factor activity and be involved in the proliferation, differentiation and survival of pluripotent and totipotent stem cells including primordial germ cells, embryonic stem cells, hematopoietic stem cells and/or germ line stem cells. Administration of the polypeptide of the invention to stem cells in vivo or ex vivo is expected to maintain and expand cell populations in a totipotential or pluripotential state which would be useful for re-engineering damaged or diseased tissues, transplantation, manufacture of bio-pharmaceuticals and the development of bio-sensors. The ability to produce large quantities of human cells has important working applications for the production of human proteins which currently must be obtained from non-human sources or donors, implantation of cells to treat diseases such as Parkinson's, Alzheimer's and other neurodegenerative diseases; tissues for grafting such as bone marrow, skin, cartilage, tendons, bone, muscle (including cardiac muscle), blood vessels, cornea, neural cells, gastrointestinal

cells and others; and organs for transplantation such as kidney, liver, pancreas (including islet cells), heart and lung.

It is contemplated that multiple different exogenous growth factors and/or cytokines may be administered in combination with the polypeptide of the invention to achieve the desired effect, including any of the growth factors listed herein, other stem cell maintenance factors, and specifically including stem cell factor (SCF), leukemia inhibitory factor (LIF), Flt-3 ligand (Flt-3L), any of the interleukins, recombinant soluble IL-6 receptor fused to IL-6, macrophage inflammatory protein 1-alpha (MIP-1-alpha), G-CSF, GM-CSF, thrombopoietin (TPO), platelet factor 4 (PF-4), platelet-derived growth factor (PDGF), neural growth factors and basic fibroblast growth factor (bFGF).

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Since totipotent stem cells can give rise to virtually any mature cell type, expansion of these cells in culture will facilitate the production of large quantities of mature cells. Techniques for culturing stem cells are known in the art and administration of polypeptides of the invention, optionally with other growth factors and/or cytokines, is expected to enhance the survival and proliferation of the stem cell populations. This can be accomplished by direct administration of the polypeptide of the invention to the culture medium.

Alternatively, stroma cells transfected with a polynucleotide that encodes for the polypeptide of the invention can be used as a feeder layer for the stem cell populations in culture or in vivo. Stromal support cells for feeder layers may include embryonic bone marrow fibroblasts, bone marrow stromal cells, fetal liver cells, or cultured embryonic fibroblasts (see U.S. Patent No. 5,690,926).

Stem cells themselves can be transfected with a polynucleotide of the invention to induce autocrine expression of the polypeptide of the invention. This will allow for generation of undifferentiated totipotential/pluripotential stem cell lines that are useful as is or that can then be differentiated into the desired mature cell types. These stable cell lines can also serve as a source of undifferentiated totipotential/pluripotential mRNA to create cDNA libraries and templates for polymerase chain reaction experiments. These studies would allow for the isolation and identification of differentially expressed genes in stem cell populations that regulate stem cell proliferation and/or maintenance.

Expansion and maintenance of totipotent stem cell populations will be useful in the treatment of many pathological conditions. For example, polypeptides of the present invention may be used to manipulate stem cells in culture to give rise to neuroepithelial cells that can be used to augment or replace cells damaged by illness, autoimmune disease, accidental damage or genetic disorders. The polypeptide of the invention may be useful for

inducing the proliferation of neural cells and for the regeneration of nerve and brain tissue, i.e. for the treatment of central and peripheral nervous system diseases and neuropathies, as well as mechanical and traumatic disorders which involve degeneration, death or trauma to neural cells or nerve tissue. In addition, the expanded stem cell populations can also be genetically altered for gene therapy purposes and to decrease host rejection of replacement tissues after grafting or implantation.

Expression of the polypeptide of the invention and its effect on stem cells can also be manipulated to achieve controlled differentiation of the stem cells into more differentiated cell types. A broadly applicable method of obtaining pure populations of a specific differentiated cell type from undifferentiated stem cell populations involves the use of a cell-type specific promoter driving a selectable marker. The selectable marker allows only cells of the desired type to survive. For example, stem cells can be induced to differentiate into cardiomyocytes (Wobus et al., Differentiation, 48: 173-182, (1991); Klug et al., J. Clin. Invest., 98(1): 216-224, (1998)) or skeletal muscle cells (Browder, L. W. In: *Principles of Tissue Engineering eds.* Lanza et al., Academic Press (1997)). Alternatively, directed differentiation of stem cells can be accomplished by culturing the stem cells in the presence of a differentiation factor such as retinoic acid and an antagonist of the polypeptide of the invention which would inhibit the effects of endogenous stem cell factor activity and allow differentiation to proceed.

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In vitro cultures of stem cells can be used to determine if the polypeptide of the invention exhibits stem cell growth factor activity. Stem cells are isolated from any one of various cell sources (including hematopoietic stem cells and embryonic stem cells) and cultured on a feeder layer, as described by Thompson et al. Proc. Natl. Acad. Sci, U.S.A., 92: 7844-7848 (1995), in the presence of the polypeptide of the invention alone or in combination with other growth factors or cytokines. The ability of the polypeptide of the invention to induce stem cells proliferation is determined by colony formation on semi-solid support e.g. as described by Bernstein et al., Blood, 77: 2316-2321 (1991).

3.10.5 HEMATOPOIESIS REGULATING ACTIVITY

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A polypeptide of the present invention may be involved in regulation of hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell disorders. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines,

thereby indicating utility, for example, in treating various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression; in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use in place of or complimentary to platelet transfusions: and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either in-vivo or ex-vivo (i.e., in conjunction with bone marrow transplantation or with peripheral progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

Therapeutic compositions of the invention can be used in the following:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

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Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. Cellular Biology 15:141-151, 1995; Keller et al., Molecular and Cellular Biology 13:473-486, 1993; McClanahan et al., Blood 81:2903-2915, 1993.

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Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M. G. In Culture of Hematopoietic Cells. R. I. Freshney, et al. eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, N.Y. 1994; Hirayama et al., Proc. Natl. Acad. Sci. USA 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I. K. and Briddell, R. A. In Culture of Hematopoietic Cells. R. I. Freshney, et al. eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, N.Y. 1994; Neben et al., Experimental Hematology 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R. E. In Culture of Hematopoietic Cells. R. I. Freshney, et al. eds. Vol pp. 1-21, Wiley-Liss, Inc., New York, N.Y. 1994; Long term bone marrow cultures

in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In Culture of Hematopoietic Cells. R. I. Freshney, et al. eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, N.Y. 1994; Long term culture initiating cell assay, Sutherland, H. J. In Culture of Hematopoietic Cells. R. I. Freshney, et al. eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, N.Y. 1994.

3.10.6 TISSUE GROWTH ACTIVITY

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A polypeptide of the present invention also may be involved in bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as well as in wound healing and tissue repair and replacement, and in healing of burns, incisions and ulcers.

A polypeptide of the present invention which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Compositions of a polypeptide, antibody, binding partner, or other modulator of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. De novo bone formation induced by an osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A polypeptide of this invention may also be involved in attracting bone-forming cells, stimulating growth of bone-forming cells, or inducing differentiation of progenitors of bone-forming cells. Treatment of osteoporosis, osteoarthritis, bone degenerative disorders, or periodontal disease, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by inflammatory processes may also be possible using the composition of the invention.

Another category of tissue regeneration activity that may involve the polypeptide of the present invention is tendon/ligament formation. Induction of tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to tendon or ligament tissue. De novo tendon/ligament-like tissue formation induced by a composition of the present invention

contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide environment to attract tendon- or ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors ex vivo for return in vivo to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel syndrome and other tendon or ligament defects. The compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

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The compositions of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, i.e. for the treatment of central and peripheral nervous system diseases and neuropathies, as well as mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a composition may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or other medical therapies may also be treatable using a composition of the invention.

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Compositions of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

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Compositions of the present invention may also be involved in the generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring may allow normal tissue to regenerate. A polypeptide of the present invention may also exhibit angiogenic activity.

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A composition of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A composition of the present invention may also be useful for promoting or inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

Therapeutic compositions of the invention can be used in the following:

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Assays for tissue generation activity include, without limitation, those described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, Epidermal Wound Healing, pps. 71-112 (Maibach, H. I. and Rovee, D. T., eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

3.10.7 IMMUNE STIMULATING OR SUPPRESSING ACTIVITY

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A polypeptide of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A polynucleotide of the invention can encode a polypeptide exhibiting such activities. A protein may be useful in the treatment of various immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune disorders. More specifically, infectious diseases causes by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpes viruses, mycobacteria, Leishmania spp., malaria spp. and various fungal infections such as candidiasis. Of course, in this regard, proteins of the present invention may also be useful where a boost to the immune system generally may be desirable, i.e., in the treatment of cancer.

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Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitis, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein (or antagonists thereof, including antibodies) of the present invention may also to be useful in the

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treatment of allergic reactions and conditions (e.g., anaphylaxis, serum sickness, drug reactions, food allergies, insect venom allergies, mastocytosis, allergic rhinitis, hypersensitivity pneumonitis, urticaria, angioedema, eczema, atopic dermatitis, allergic contact dermatitis, erythema multiforme, Stevens-Johnson syndrome, allergic conjunctivitis, atopic keratoconjunctivitis, venereal keratoconjunctivitis, giant papillary conjunctivitis and contact allergies), such as asthma (particularly allergic asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein (or antagonists thereof) of the present invention. The therapeutic effects of the polypeptides or antagonists thereof on allergic reactions can be evaluated by in vivo animals models such as the cumulative contact enhancement test (Lastbom et al., Toxicology 125: 59-66, 1998), skin prick test (Hoffmann et al., Allergy 54: 446-54, 1999), guinea pig skin sensitization test (Vohr et al., Arch. Toxocol. 73: 501-9), and murine local lymph node assay (Kimber et al., J. Toxicol. Environ. Health 53: 563-79).

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Using the proteins of the invention it may also be possible to modulate immune responses, in a number of ways. Down regulation may be in the form of inhibiting or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent. Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

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Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as, for example, B7)), e.g., preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a therapeutic composition of the invention may prevent cytokine synthesis by immune cells, such as T cells, and thus acts as an immunosuppressant. Moreover, a lack of costimulation

may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

The efficacy of particular therapeutic compositions in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins in vivo as described in Lenschow et al., Science 257:789-792 (1992) and Turka et al., Proc. Natl. Acad. Sci USA, 89:11102-11105 (1992). In addition, murine models of GVHD (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of therapeutic compositions of the invention on the development of that disease.

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Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block stimulation of T cells can be used to inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythmatosis in MRL/lpr/lpr mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia gravis (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 840-856).

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Upregulation of an antigen function (e.g., a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an existing immune response or eliciting an initial immune response. For example, enhancing an immune response may be useful in

cases of viral infection, including systemic viral diseases such as influenza, the common cold, and encephalitis.

Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells in vitro with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the in vitro activated T cells into the patient. Another method of enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate, T cells in vivo.

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A polypeptide of the present invention may provide the necessary stimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient mounts of MHC class I or MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (e.g., a cytoplasmic-domain truncated portion) of an MHC class I alpha chain protein and β2 microglobulin protein or an MHC class II alpha chain protein and an MHC class II beta chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a peptide having the activity of a B lymphocyte antigen (e.g., B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A. M. Kruisbeek, D. H. Margulies, E. M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19;

Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., I. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bowman et al., J. Virology 61:1992-1998; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

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Assays for T-cell-dependent immunoglobulin responses and isotype switching (which will identify, among others, proteins that modulate T-cell dependent antibody responses and that affect Th1/Th2 profiles) include, without limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and Assays for B cell function: In vitro antibody production, Mond, J. J. and Brunswick, M. In Current Protocols in Immunology. J. E. e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others, proteins that generate predominantly Th1 and CTL responses) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A. M. Kruisbeek, D. H. Margulies, E. M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins expressed by dendritic cells that activate naive T-cells) include, without limitation, those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., Journal of Experimental Medicine 173:549-559, 1991; Macatonia et al., Journal of Immunology 154:5071-5079, 1995; Porgador et al., Journal of Experimental Medicine 182:255-260, 1995; Nair et al., Journal of Virology 67:4062-4069, 1993; Huang et al., Science 264:961-965, 1994; Macatonia et al., Journal of Experimental Medicine 169:1255-1264, 1989; Bhardwaj et al., Journal of Clinical Investigation 94:797-807, 1994; and Inaba et al., Journal of Experimental Medicine 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others, proteins that prevent apoptosis after superantigen induction and proteins that regulate lymphocyte homeostasis) include, without limitation, those described in: Darzynkiewicz et al., Cytometry 13:795-808, 1992; Gorczyca et al., Leukemia 7:659-670, 1993; Gorczyca et al., Cancer Research 53:1945-1951, 1993; Itoh et al., Cell 66:233-243, 1991; Zacharchuk, Journal of

Immunology 145:4037-4045, 1990; Zamai et al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad Sci. USA 88:7548-7551, 1991.

3.10.8 ACTIVIN/INHIBIN ACTIVITY

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A polypeptide of the present invention may also exhibit activin- or inhibin-related activities. A polynucleotide of the invention may encode a polypeptide exhibiting such characteristics. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins and are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a polypeptide of the present invention, alone or in heterodimers with a member of the inhibin family, may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the polypertide of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin group, may be useful as a fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, U.S. Pat. No. 4,798,885. A polypeptide of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as, but not limited to, cows, sheep and pigs.

The activity of a polypeptide of the invention may, among other means, be measured by the following methods.

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779-782, 1986; Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

3.10.9 CHEMOTACTIC/CHEMOKINETIC ACTIVITY

A polypeptide of the present invention may be involved in chemotactic or chemokinetic activity for mammalian cells, including, for example, monocytes, fibroblasts,

neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. A polynucleotide of the invention can encode a polypeptide exhibiting such attributes. Chemotactic and chemokinetic receptor activation can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic compositions (e.g. proteins, antibodies, binding partners, or modulators of the invention) provide particular advantages in treatment of wounds and other trauma to tissues, as well as in treatment of localized infections. For example, attraction of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

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A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

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Therapeutic compositions of the invention can be used in the following:

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Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A. M. Kruisbeek, D. H. Marguiles, E. M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al. J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al Eur. J. Immunol. 25:1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153:1762-1768, 1994.

3.10.10 HEMOSTATIC AND THROMBOLYTIC ACTIVITY

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A polypeptide of the invention may also be involved in hemostatis or thrombolysis or thrombosis. A polynucleotide of the invention can encode a polyneptide exhibiting such attributes. Compositions may be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other . hemostatic events in treating wounds resulting from trauma, surgery or other causes. A composition of the invention may also be useful for dissolving or inhibiting formation of

thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

Therapeutic compositions of the invention can be used in the following:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.

3.10.11 CANCER DIAGNOSIS AND THERAPY

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Polypeptides of the invention may be involved in cancer cell generation, proliferation or metastasis. Detection of the presence or amount of polynucleotides or polypeptides of the invention may be useful for the diagnosis and/or prognosis of one or more types of cancer. For example, the presence or increased expression of a polynucleotide/polypeptide of the invention may indicate a hereditary risk of cancer, a precancerous condition, or an ongoing malignancy. Conversely, a defect in the gene or absence of the polypeptide may be associated with a cancer condition. Identification of single nucleotide polymorphisms associated with cancer or a predisposition to cancer may also be useful for diagnosis or prognosis.

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Cancer treatments promote tumor regression by inhibiting tumor cell proliferation, inhibiting angiogenesis (growth of new blood vessels that is necessary to support tumor growth) and/or prohibiting metastasis by reducing tumor cell motility or invasiveness. Therapeutic compositions of the invention may be effective in adult and pediatric oncology including in solid phase tumors/malignancies, locally advanced tumors, human soft tissue sarcomas, metastatic cancer, including lymphatic metastases, blood cell malignancies including multiple myeloma, acute and chronic leukemias, and lymphomas, head and neck cancers including mouth cancer, larynx cancer and thyroid cancer, lung cancers including small cell carcinoma and non-small cell cancers, breast cancers including small cell carcinoma and ductal carcinoma, gastrointestinal cancers including esophageal cancer. stomach cancer, colon cancer, colorectal cancer and polyps associated with colorectal neoplasia, pancreatic cancers, liver cancer, urologic cancers including bladder cancer and prostate cancer, malignancies of the female genital tract including ovarian carcinoma, uterine (including endometrial) cancers, and solid tumor in the ovarian follicle, kidney cancers including renal cell carcinoma, brain cancers including intrinsic brain tumors, neuroblastoma, astrocytic brain tumors, gliomas, metastatic tumor cell invasion in the central nervous system,

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bone cancers including osteomas, skin cancers including malignant melanoma, tumor progression of human skin keratinocytes, squamous cell carcinoma, basal cell carcinoma, hemangiopericytoma and Karposi's sarcoma.

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Polypeptides, polynucleotides, or modulators of polypeptides of the invention (including inhibitors and stimulators of the biological activity of the polypeptide of the invention) may be administered to treat cancer. Therapeutic compositions can be administered in therapeutically effective dosages alone or in combination with adjuvant cancer therapy such as surgery, chemotherapy, radiotherapy, thermotherapy, and laser therapy, and may provide a beneficial effect, e.g. reducing tumor size, slowing rate of tumor growth, inhibiting metastasis, or otherwise improving overall clinical condition, without necessarily eradicating the cancer.

The composition can also be administered in therapeutically effective amounts as a portion of an anti-cancer cocktail. An anti-cancer cocktail is a mixture of the polypeptide or modulator of the invention with one or more anti-cancer drugs in addition to a pharmaceutically acceptable carrier for delivery. The use of anti-cancer cocktails as a cancer treatment is routine. Anti-cancer drugs that are well known in the art and can be used as a treatment in combination with the polypeptide or modulator of the invention include: Actinomycin D, Aminoglutethimide, Asparaginase, Bleomycin, Busulfan, Carboplatin, Carmustine, Chlorambucil, Cisplatin (cis-DDP), Cyclophosphamide, Cytarabine HCl (Cytosine arabinoside), Dacarbazine, Dactinomycin, Daunorubicin HCl, Doxorubicin HCl, Estramustine phosphate sodium, Etoposide (V16-213), Floxuridine, 5-Fluorouracil (5-Fu), Flutamide, Hydroxyurea (hydroxycarbamide), Ifosfamide, Interferon Alpha-2a, Interferon Alpha-2b, Leuprolide acetate (LHRH-releasing factor analog), Lomustine, Mechlorethamine HCl (nitrogen mustard), Melphalan, Mercaptopurine, Mesna, Methotrexate (MTX), Mitomycin, Mitoxantrone HCl, Octreotide, Plicamycin, Procarbazine HCl, Streptozocin, Tamoxifen citrate, Thioguanine, Thiotepa, Vinblastine sulfate, Vincristine sulfate, Amsacrine, Azacitidine, Hexamethylmelamine, Interleukin-2, Mitoguazone, Pentostatin, Semustine, Teniposide, and Vindesine sulfate.

In addition, therapeutic compositions of the invention may be used for prophylactic treatment of cancer. There are hereditary conditions and/or environmental situations (e.g. exposure to carcinogens) known in the art that predispose an individual to developing cancers. Under these circumstances, it may be beneficial to treat these individuals with therapeutically effective doses of the polypeptide of the invention to reduce the risk of developing cancers.

In vitro models can be used to determine the effective doses of the polypeptide of the invention as a potential cancer treatment. These in vitro models include proliferation assays of cultured tumor cells, growth of cultured tumor cells in soft agar (see Freshney, (1987) Culture of Animal Cells: A Manual of Basic Technique, Wily-Liss, New York, NY Ch 18 and Ch 21), tumor systems in nude mice as described in Giovanella et al., J. Natl. Can. Inst., 52: 921-30 (1974), mobility and invasive potential of tumor cells in Boyden Chamber assays as described in Pilkington et al., Anticancer Res., 17: 4107-9 (1997), and angiogenesis assays such as induction of vascularization of the chick chorioallantoic membrane or induction of vascular endothelial cell migration as described in Ribatta et al., Intl. J. Dev. Biol., 40: 1189-97 (1999) and Li et al., Clin. Exp. Metastasis, 17:423-9 (1999), respectively. Suitable tumor cells lines are available, e.g. from American Type Tissue Culture Collection catalogs.

3.10.12 RECEPTOR/LIGAND ACTIVITY

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A polypeptide of the present invention may also demonstrate activity as receptor, receptor ligand or inhibitor or agonist of receptor/ligand interactions. A polynucleotide of the invention can encode a polypeptide exhibiting such characteristics. Examples of such receptors and ligands include, without limitation, cytokine receptors and their ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses. Receptors and ligands are also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a polypeptide of the invention may, among other means, be measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A. M. Kruisbeek, D. H. Margulies, E. M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

By way of example, the polypeptides of the invention may be used as a receptor for a ligand(s) thereby transmitting the biological activity of that ligand(s). Ligands may be identified through binding assays, affinity chromatography, dihybrid screening assays, BIAcore assays, gel overlay assays, or other methods known in the art.

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Studies characterizing drugs or proteins as agonist or antagonist or partial agonists or a partial antagonist require the use of other proteins as competing ligands. The polypeptides of the present invention or ligand(s) thereof may be labeled by being coupled to radioisotopes, colorimetric molecules or a toxin molecules by conventional methods. ("Guide to Protein Purification" Murray P. Deutscher (ed) Methods in Enzymology Vol. 182 (1990) Academic Press, Inc. San Diego). Examples of radioisotopes include, but are not limited to, tritium and carbon-14. Examples of colorimetric molecules include, but are not limited to. fluorescent molecules such as fluorescamine, or rhodamine or other colorimetric molecules. Examples of toxins include, but are not limited, to ricin.

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3.10.13 DRUG SCREENING

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This invention is particularly useful for screening chemical compounds by using the novel polypeptides or binding fragments thereof in any of a variety of drug screening techniques. The polypeptides or fragments employed in such a test may either be free in solution, affixed to a solid support, borne on a cell surface or located intracellularly. One method of drug screening utilizes eukaryotic or prokaryotic host cells which are stably transformed with recombinant nucleic acids expressing the polypeptide or a fragment thereof. Drugs are screened against such transformed cells in competitive binding assays. Such cells, either in viable or fixed form, can be used for standard binding assays. One may measure, for example, the formation of complexes between polypeptides of the invention or fragments and the agent being tested or examine the diminution in complex formation between the novel polypeptides and an appropriate cell line, which are well known in the art.

Sources for test compounds that may be screened for ability to bind to or modulate (i.e., increase or decrease) the activity of polypeptides of the invention include (1) inorganic and organic chemical libraries, (2) natural product libraries, and (3) combinatorial libraries comprised of either random or mimetic peptides, oligonucleotides or organic molecules.

Chemical libraries may be readily synthesized or purchased from a number of commercial sources, and may include structural analogs of known compounds or compounds that are identified as "hits" or "leads" via natural product screening.

The sources of natural product libraries are microorganisms (including bacteria and fungi), animals, plants or other vegetation, or marine organisms, and libraries of mixtures for screening may be created by: (1) fermentation and extraction of broths from soil, plant or marine microorganisms or (2) extraction of the organisms themselves. Natural product libraries include polyketides, non-ribosomal peptides, and (non-naturally occurring) variants thereof. For a review, see *Science* 282:63-68 (1998).

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Combinatorial libraries are composed of large numbers of peptides, oligonucleotides or organic compounds and can be readily prepared by traditional automated synthesis methods, PCR, cloning or proprietary synthetic methods. Of particular interest are peptide and oligonucleotide combinatorial libraries. Still other libraries of interest include peptide, protein, peptidomimetic, multiparallel synthetic collection, recombinatorial, and polypeptide libraries. For a review of combinatorial chemistry and libraries created therefrom, see Myers, Curr. Opin. Biotechnol. 8:701-707 (1997). For reviews and examples of peptidomimetic libraries, see Al-Obeidi et al., Mol. Biotechnol, 9(3):205-23 (1998); Hruby et al., Curr Opin Chem Biol, 1(1):114-19 (1997); Dorner et al., Bioorg Med Chem, 4(5):709-15 (1996) (alkylated dipeptides).

Identification of modulators through use of the various libraries described herein permits modification of the candidate "hit" (or "lead") to optimize the capacity of the "hit" to bind a polypeptide of the invention. The molecules identified in the binding assay are then tested for antagonist or agonist activity in *in vivo* tissue culture or animal models that are well known in the art. In brief, the molecules are titrated into a plurality of cell cultures or animals and then tested for either cell/animal death or prolonged survival of the animal/cells.

The binding molecules thus identified may be complexed with toxins, e.g., ricin or cholera, or with other compounds that are toxic to cells such as radioisotopes. The toxin-binding molecule complex is then targeted to a tumor or other cell by the specificity of the binding molecule for a polypeptide of the invention. Alternatively, the binding molecules may be complexed with imaging agents for targeting and imaging purposes.

3.10.14 ASSAY FOR RECEPTOR ACTIVITY

The invention also provides methods to detect specific binding of a polypeptide e.g. a ligand or a receptor. The art provides numerous assays particularly useful for identifying previously unknown binding partners for receptor polypeptides of the invention. For example, expression cloning using mammalian or bacterial cells, or dihybrid screening assays can be used to identify polynucleotides encoding binding partners. As another example,

affinity chromatography with the appropriate immobilized polypeptide of the invention can be used to isolate polypeptides that recognize and bind polypeptides of the invention. There are a number of different libraries used for the identification of compounds, and in particular small molecules, that modulate (*i.e.*, increase or decrease) biological activity of a polypeptide of the invention. Ligands for receptor polypeptides of the invention can also be identified by adding exogenous ligands, or cocktails of ligands to two cells populations that are genetically identical except for the expression of the receptor of the invention: one cell population expresses the receptor of the invention whereas the other does not. The response of the two cell populations to the addition of ligands(s) are then compared. Alternatively, an expression library can be co-expressed with the polypeptide of the invention in cells and assayed for an autocrine response to identify potential ligand(s). As still another example, BIAcore assays, gel overlay assays, or other methods known in the art can be used to identify binding partner polypeptides, including, (1) organic and inorganic chemical libraries, (2) natural product libraries, and (3) combinatorial libraries comprised of random peptides, oligonucleotides or organic molecules.

The role of downstream intracellular signaling molecules in the signaling cascade of the polypeptide of the invention can be determined. For example, a chimeric protein in which the cytoplasmic domain of the polypeptide of the invention is fused to the extracellular portion of a protein, whose ligand has been identified, is produced in a host cell. The cell is then incubated with the ligand specific for the extracellular portion of the chimeric protein, thereby activating the chimeric receptor. Known downstream proteins involved in intracellular signaling can then be assayed for expected modifications i.e. phosphorylation. Other methods known to those in the art can also be used to identify signaling molecules involved in receptor activity.

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3.10.15 ANTI-INFLAMMATORY ACTIVITY

Compositions of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Compositions with such activities can be used to treat inflammatory conditions including chronic or acute conditions), including without limitation intimation

associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis, cytokine or chemokine-induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of cytokines such as TNF or IL-1. Compositions of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material. Compositions of this invention may be utilized to prevent or treat conditions such as, but not limited to, sepsis, acute pancreatitis, endotoxin shock, cytokine induced shock, rheumatoid arthritis, chronic inflammatory arthritis, pancreatic cell damage from diabetes mellitus type 1, graft versus host disease, inflammatory bowel disease, inflamation associated with pulmonary disease, other autoimmune disease or inflammatory disease, an antiproliferative agent such as for acute or chronic mylegenous leukemia or in the prevention of premature labor secondary to intrauterine infections.

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3.10.16 LEUKEMIAS

Leukemias and related disorders may be treated or prevented by administration of a therapeutic that promotes or inhibits function of the polynucleotides and/or polypeptides of the invention. Such leukemias and related disorders include but are not limited to acute leukemia, acute lymphocytic leukemia, acute myelocytic leukemia, myeloblastic, promyelocytic, myelomonocytic, monocytic, erythroleukemia, chronic leukemia, chronic myelocytic (granulocytic) leukemia and chronic lymphocytic leukemia (for a review of such disorders, see Fishman et al., 1985, Medicine, 2d Ed., J.B. Lippincott Co., Philadelphia).

3.10.17 NERVOUS SYSTEM DISORDERS

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Nervous system disorders, involving cell types which can be tested for efficacy of intervention with compounds that modulate the activity of the polynucleotides and/or polypeptides of the invention, and which can be treated upon thus observing an indication of therapeutic utility, include but are not limited to nervous system injuries, and diseases or disorders which result in either a disconnection of axons, a diminution or degeneration of neurons, or demyelination. Nervous system lesions which may be treated in a patient (including human and non-human mammalian patients) according to the invention include but are not limited to the following lesions of either the central (including spinal cord, brain) or peripheral nervous systems:

 (i) traumatic lesions, including lesions caused by physical injury or associated with surgery, for example, lesions which sever a portion of the nervous system, or compression injuries;

(ii) ischemic lesions, in which a lack of oxygen in a portion of the nervous system results in neuronal injury or death, including cerebral infarction or ischemia, or spinal cord infarction or ischemia;

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- (iii) infectious lesions, in which a portion of the nervous system is destroyed or injured as a result of infection, for example, by an abscess or associated with infection by human immunodeficiency virus, herpes zoster, or herpes simplex virus or with Lyme disease, tuberculosis, syphilis;
- (iv) degenerative lesions, in which a portion of the nervous system is destroyed or injured as a result of a degenerative process including but not limited to degeneration associated with Parkinson's disease, Alzheimer's disease, Huntington's chorea, or amyotrophic lateral sclerosis;
- (v) lesions associated with nutritional diseases or disorders, in which a portion of the nervous system is destroyed or injured by a nutritional disorder or disorder of metabolism including but not limited to, vitamin B12 deficiency, folic acid deficiency, Wernicke disease, tobacco-alcohol amblyopia, Marchiafava-Bignami disease (primary degeneration of the corpus callosum), and alcoholic cerebellar degeneration;
- (vi) neurological lesions associated with systemic diseases including but not limited to diabetes (diabetic neuropathy, Bell's palsy), systemic lupus erythematosus, carcinoma, or sarcoidosis;
- (vii) lesions caused by toxic substances including alcohol, lead, or particular neurotoxins; and
- (viii) demyelinated lesions in which a portion of the nervous system is destroyed or injured by a demyelinating disease including but not limited to multiple sclerosis, human immunodeficiency virus-associated myelopathy, transverse myelopathy or various etiologies, progressive multifocal leukoencephalopathy, and central pontine myelinolysis.

Therapeutics which are useful according to the invention for treatment of a nervous system disorder may be selected by testing for biological activity in promoting the survival or differentiation of neurons. For example, and not by way of limitation, therapeutics which elicit any of the following effects may be useful according to the invention:

- (i) increased survival time of neurons in culture;
- (ii) increased sprouting of neurons in culture or in vivo;

(iii) increased production of a neuron-associated molecule in culture or *in vivo*, e.g., choline acetyltransferase or acetylcholinesterase with respect to motor neurons; or

(iv) decreased symptoms of neuron dysfunction in vivo.

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Such effects may be measured by any method known in the art. In preferred, non-limiting embodiments, increased survival of neurons may be measured by the method set forth in Arakawa et al. (1990, J. Neurosci. 10:3507-3515); increased sprouting of neurons may be detected by methods set forth in Pestronk et al. (1980, Exp. Neurol. 70:65-82) or Brown et al. (1981, Ann. Rev. Neurosci. 4:17-42); increased production of neuron-associated molecules may be measured by bioassay, enzymatic assay, antibody binding, Northern blot assay, etc., depending on the molecule to be measured; and motor neuron dysfunction may be measured by assessing the physical manifestation of motor neuron disorder, e.g., weakness, motor neuron conduction velocity, or functional disability.

In specific embodiments, motor neuron disorders that may be treated according to the invention include but are not limited to disorders such as infarction, infection, exposure to toxin, trauma, surgical damage, degenerative disease or malignancy that may affect motor neurons as well as other components of the nervous system, as well as disorders that selectively affect neurons such as amyotrophic lateral sclerosis, and including but not limited to progressive spinal muscular atrophy, progressive bulbar palsy, primary lateral sclerosis, infantile and juvenile muscular atrophy, progressive bulbar paralysis of childhood (Fazio-Londe syndrome), poliomyelitis and the post polio syndrome, and Hereditary Motorsensory Neuropathy (Charcot-Marie-Tooth Disease).

3.10.18 OTHER ACTIVITIES

A polypeptide of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including, without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or circadian cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, co-factors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition

(including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the ability to bind antigens or complement); and the ability to act as an antigen in a vaccine composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

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3.10.19 IDENTIFICATION OF POLYMORPHISMS

The demonstration of polymorphisms makes possible the identification of such polymorphisms in human subjects and the pharmacogenetic use of this information for diagnosis and treatment. Such polymorphisms may be associated with, e.g., differential predisposition or susceptibility to various disease states (such as disorders involving inflammation or immune response) or a differential response to drug administration, and this genetic information can be used to tailor preventive or therapeutic treatment appropriately. For example, the existence of a polymorphism associated with a predisposition to inflammation or autoimmune disease makes possible the diagnosis of this condition in humans by identifying the presence of the polymorphism.

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Polymorphisms can be identified in a variety of ways known in the art which all generally involve obtaining a sample from a patient, analyzing DNA from the sample, optionally involving isolation or amplification of the DNA, and identifying the presence of the polymorphism in the DNA. For example, PCR may be used to amplify an appropriate fragment of genomic DNA which may then be sequenced. Alternatively, the DNA may be subjected to allele-specific oligonucleotide hybridization (in which appropriate oligonucleotides are hybridized to the DNA under conditions permitting detection of a single base mismatch) or to a single nucleotide extension assay (in which an oligonucleotide that hybridizes immediately adjacent to the position of the polymorphism is extended with one or more labeled nucleotides). In addition, traditional restriction fragment length polymorphism analysis (using restriction enzymes that provide differential digestion of the genomic DNA depending on the presence or absence of the polymorphism) may be performed. Arrays with nucleotide sequences of the present invention can be used to detect polymorphisms. The array can comprise modified nucleotide sequences of the present invention in order to detect

the nucleotide sequences of the present invention. In the alternative, any one of the nucleotide sequences of the present invention can be placed on the array to detect changes from those sequences.

Alternatively a polymorphism resulting in a change in the amino acid sequence could also be detected by detecting a corresponding change in amino acid sequence of the protein, e.g., by an antibody specific to the variant sequence.

3.10.20 ARTHRITIS AND INFLAMMATION

The immunosuppressive effects of the compositions of the invention against rheumatoid arthritis is determined in an experimental animal model system. The experimental model system is adjuvant induced arthritis in rats, and the protocol is described by J. Holoshitz, et at., 1983, Science, 219:56, or by B. Waksman et al., 1963, Int. Arch. Allergy Appl. Immunol., 23:129. Induction of the disease can be caused by a single injection, generally intradermally, of a suspension of killed Mycobacterium tuberculosis in complete Freund's adjuvant (CFA). The route of injection can vary, but rats may be injected at the base of the tail with an adjuvant mixture. The polypeptide is administered in phosphate buffered solution (PBS) at a dose of about 1-5 mg/kg. The control consists of administering PBS only.

The procedure for testing the effects of the test compound would consist of intradermally injecting killed Mycobacterium tuberculosis in CFA followed by immediately administering the test compound and subsequent treatment every other day until day 24. At 14, 15, 18, 20, 22, and 24 days after injection of Mycobacterium CFA, an overall arthritis score may be obtained as described by J. Holoskitz above. An analysis of the data would reveal that the test compound would have a dramatic affect on the swelling of the joints as measured by a decrease of the arthritis score.

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3.11 THERAPEUTIC METHODS

The compositions (including polypeptide fragments, analogs, variants and antibodies or other binding partners or modulators including antisense polynucleotides) of the invention have numerous applications in a variety of therapeutic methods. Examples of therapeutic applications include, but are not limited to, those exemplified herein.

3.11.1 EXAMPLE

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One embodiment of the invention is the administration of an effective amount of the polypeptides or other composition of the invention to individuals affected by a disease or disorder that can be modulated by regulating the peptides of the invention. While the mode of administration is not particularly important, parenteral administration is preferred. An exemplary mode of administration is to deliver an intravenous bolus. The dosage of the polypeptides or other composition of the invention will normally be determined by the prescribing physician. It is to be expected that the dosage will vary according to the age. weight, condition and response of the individual patient. Typically, the amount of polypeptide administered per dose will be in the range of about 0.01µg/kg to 100 mg/kg of body weight, with the preferred dose being about 0.1µg/kg to 10 mg/kg of patient body weight. For parenteral administration, polypeptides of the invention will be formulated in an injectable form combined with a pharmaceutically acceptable parenteral vehicle. Such vehicles are well known in the art and examples include water, saline, Ringer's solution. dextrose solution, and solutions consisting of small amounts of the human serum albumin. The vehicle may contain minor amounts of additives that maintain the isotonicity and stability of the polypeptide or other active ingredient. The preparation of such solutions is within the skill of the art.

3.12 PHARMACEUTICAL FORMULATIONS AND ROUTES OF ADMINISTRATION

A protein or other composition of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources and including antibodies and other binding partners of the polypeptides of the invention) may be administered to a patient in need, by itself, or in pharmaceutical compositions where it is mixed with suitable carriers or excipient(s) at doses to treat or ameliorate a variety of disorders. Such a composition may optionally contain (in addition to protein or other active ingredient and a carrier) diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2,

G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the disease or disorder in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet-derived growth factor (PDGF), transforming growth factors (TGF- α and TGF- β), insulin-like growth factor (IGF), as well as cytokines described herein.

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The pharmaceutical composition may further contain other agents which either enhance the activity of the protein or other active ingredient or complement its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein or other active ingredient of the invention, or to minimize side effects. Conversely, protein or other active ingredient of the present invention may be included in formulations of the particular clotting factor, cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the clotting factor, cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent (such as IL-1Ra, IL-1 Hy1, IL-1 Hy2, anti-TNF, corticosteroids, immunosuppressive agents). A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

As an alternative to being included in a pharmaceutical composition of the invention including a first protein, a second protein or a therapeutic agent may be concurrently administered with the first protein (e.g., at the same time, or at differing times provided that therapeutic concentrations of the combination of agents is achieved at the treatment site). Techniques for formulation and administration of the compounds of the instant application may be found in "Remington's Pharmaceutical Sciences," Mack Publishing Co., Easton, PA, latest edition. A therapeutically effective dose further refers to that amount of the compound sufficient to result in amelioration of symptoms, e.g., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment, healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, a therapeutically effective dose refers to that ingredient alone. When applied to a combination, a therapeutically effective dose refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein or other active ingredient of the present invention is administered to a mammal having a condition to be treated. Protein or other active ingredient of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines, lymphokines or other hematopoietic factors. When co- administered with one or more cytokines, lymphokines or other hematopoietic factors, protein or other active ingredient of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on the appropriate sequence of administering protein or other active ingredient of the present invention in combination with cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

3.12.1 ROUTES OF ADMINISTRATION

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Suitable routes of administration may, for example, include oral, rectal, transmucosal, or intestinal administration; parenteral delivery, including intramuscular, subcutaneous, intramedullary injections, as well as intrathecal, direct intraventricular, intravenous, intraperitoneal, intranasal, or intraocular injections. Administration of protein or other active ingredient of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

Alternately, one may administer the compound in a local rather than systemic manner, for example, via injection of the compound directly into a arthritic joints or in fibrotic tissue, often in a depot or sustained release formulation. In order to prevent the scarring process frequently occurring as complication of glaucoma surgery, the compounds may be administered topically, for example, as eye drops. Furthermore, one may administer the drug in a targeted drug delivery system, for example, in a liposome coated with a specific antibody, targeting, for example, arthritic or fibrotic tissue. The liposomes will be targeted to and taken up selectively by the afflicted tissue.

The polypeptides of the invention are administered by any route that delivers an effective dosage to the desired site of action. The determination of a suitable route of administration and an effective dosage for a particular indication is within the level of skill in

the art. Preferably for wound treatment, one administers the therapeutic compound directly to the site. Suitable dosage ranges for the polypeptides of the invention can be extrapolated from these dosages or from similar studies in appropriate animal models. Dosages can then be adjusted as necessary by the clinician to provide maximal therapeutic benefit.

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3.12.2 COMPOSITIONS/FORMULATIONS

Pharmaceutical compositions for use in accordance with the present invention thus may be formulated in a conventional manner using one or more physiologically acceptable carriers comprising excipients and auxiliaries which facilitate processing of the active compounds into preparations which can be used pharmaceutically. These pharmaceutical compositions may be manufactured in a manner that is itself known, e.g., by means of conventional mixing, dissolving, granulating, dragee-making, levigating, emulsifying, encapsulating, entrapping or lyophilizing processes. Proper formulation is dependent upon the route of administration chosen. When a therapeutically effective amount of protein or other active ingredient of the present invention is administered orally, protein or other active ingredient of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule. and powder contain from about 5 to 95% protein or other active ingredient of the present invention, and preferably from about 25 to 90% protein or other active ingredient of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein or other active ingredient of the present invention, and preferably from about 1 to 50% protein or other active ingredient of the present invention.

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When a therapeutically effective amount of protein or other active ingredient of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein or other active ingredient of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein or other active ingredient solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition

for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein or other active ingredient of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art. For injection, the agents of the invention may be formulated in aqueous solutions, preferably in physiologically compatible buffers such as Hanks's solution, Ringer's solution, or physiological saline buffer. For transmucosal administration, penetrants appropriate to the barrier to be permeated are used in the formulation. Such penetrants are generally known in the art.

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For oral administration, the compounds can be formulated readily by combining the active compounds with pharmaceutically acceptable carriers well known in the art. Such carriers enable the compounds of the invention to be formulated as tablets, pills, dragees, capsules, liquids, gels, syrups, slurries, suspensions and the like, for oral ingestion by a patient to be treated. Pharmaceutical preparations for oral use can be obtained from a solid excipient, optionally grinding a resulting mixture, and processing the mixture of granules. after adding suitable auxiliaries, if desired, to obtain tablets or dragee cores. Suitable excipients are, in particular, fillers such as sugars, including lactose, sucrose, mannitol, or sorbitol; cellulose preparations such as, for example, maize starch, wheat starch, rice starch, potato starch, gelatin, gum tragacanth, methyl cellulose, hydroxypropylmethyl-cellulose, sodium carboxymethylcellulose, and/or polyvinylpyrrolidone (PVP). If desired, disintegrating agents may be added, such as the cross-linked polyvinyl pyrrolidone, agar, or alginic acid or a salt thereof such as sodium alginate. Dragee cores are provided with suitable coatings. For this purpose, concentrated sugar solutions may be used, which may optionally contain gum arabic, talc, polyvinyl pyrrolidone, carbopol gel, polyethylene glycol, and/or titanium dioxide, lacquer solutions, and suitable organic solvents or solvent mixtures. Dyestuffs or pigments may be added to the tablets or dragee coatings for identification or to characterize different combinations of active compound doses.

Pharmaceutical preparations which can be used orally include push-fit capsules made of gelatin, as well as soft, sealed capsules made of gelatin and a plasticizer, such as glycerol or sorbitol. The push-fit capsules can contain the active ingredients in admixture with filler such as lactose, binders such as starches, and/or lubricants such as talc or magnesium stearate and, optionally, stabilizers. In soft capsules, the active compounds may be dissolved or suspended in suitable liquids, such as fatty oils, liquid paraffin, or liquid polyethylene

glycols. In addition, stabilizers may be added. All formulations for oral administration should be in dosages suitable for such administration. For buccal administration, the compositions may take the form of tablets or lozenges formulated in conventional manner.

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For administration by inhalation, the compounds for use according to the present invention are conveniently delivered in the form of an aerosol spray presentation from pressurized packs or a nebuliser, with the use of a suitable propellant, e.g., dichlorodifluoromethane, trichlorofluoromethane, dichlorotetrafluoroethane, carbon dioxide or other suitable gas. In the case of a pressurized aerosol the dosage unit may be determined by providing a valve to deliver a metered amount. Capsules and cartridges of, e.g., gelatin for use in an inhaler or insufflator may be formulated containing a powder mix of the compound and a suitable powder base such as lactose or starch. The compounds may be formulated for parenteral administration by injection, e.g., by bolus injection or continuous infusion. Formulations for injection may be presented in unit dosage form, e.g., in ampules or in multi-dose containers, with an added preservative. The compositions may take such forms as suspensions, solutions or emulsions in oily or aqueous vehicles, and may contain formulatory agents such as suspending, stabilizing and/or dispersing agents.

Pharmaceutical formulations for parenteral administration include aqueous solutions of the active compounds in water-soluble form. Additionally, suspensions of the active compounds may be prepared as appropriate oily injection suspensions. Suitable lipophilic solvents or vehicles include fatty oils such as sesame oil, or synthetic fatty acid esters, such as ethyl oleate or triglycerides, or liposomes. Aqueous injection suspensions may contain substances which increase the viscosity of the suspension, such as sodium carboxymethyl cellulose, sorbitol, or dextran. Optionally, the suspension may also contain suitable stabilizers or agents which increase the solubility of the compounds to allow for the preparation of highly concentrated solutions. Alternatively, the active ingredient may be in powder form for constitution with a suitable vehicle, e.g., sterile pyrogen-free water, before use.

The compounds may also be formulated in rectal compositions such as suppositories or retention enemas, e.g., containing conventional suppository bases such as cocoa butter or other glycerides. In addition to the formulations described previously, the compounds may also be formulated as a depot preparation. Such long acting formulations may be administered by implantation (for example subcutaneously or intramuscularly) or by intramuscular injection. Thus, for example, the compounds may be formulated with suitable

polymeric or hydrophobic materials (for example as an emulsion in an acceptable oil) or ion exchange resins, or as sparingly soluble derivatives, for example, as a sparingly soluble salt.

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A pharmaceutical carrier for the hydrophobic compounds of the invention is a cosolvent system comprising benzyl alcohol, a nonpolar surfactant, a water-miscible organic polymer, and an aqueous phase. The co-solvent system may be the VPD co-solvent system. VPD is a solution of 3% w/v benzyl alcohol, 8% w/v of the nonpolar surfactant polysorbate 80, and 65% w/v polyethylene glycol 300, made up to volume in absolute ethanol. The VPD co-solvent system (VPD:5W) consists of VPD diluted 1:1 with a 5% dextrose in water solution. This co-solvent system dissolves hydrophobic compounds well, and itself produces low toxicity upon systemic administration. Naturally, the proportions of a co-solvent system may be varied considerably without destroying its solubility and toxicity characteristics. Furthermore, the identity of the co-solvent components may be varied: for example, other low-toxicity nonpolar surfactants may be used instead of polysorbate 80; the fraction size of polyethylene glycol may be varied; other biocompatible polymers may replace polyethylene glycol, e.g. polyvinyl pyrrolidone; and other sugars or polysaccharides may substitute for dextrose. Alternatively, other delivery systems for hydrophobic pharmaceutical compounds may be employed. Liposomes and emulsions are well known examples of delivery vehicles or carriers for hydrophobic drugs. Certain organic solvents such as dimethylsulfoxide also may be employed, although usually at the cost of greater toxicity. Additionally, the compounds may be delivered using a sustained-release system, such as semipermeable matrices of solid hydrophobic polymers containing the therapeutic agent. Various types of sustained-release materials have been established and are well known by those skilled in the art. Sustained-release capsules may, depending on their chemical nature, release the compounds for a few weeks up to over 100 days. Depending on the chemical nature and the biological stability of the therapeutic reagent, additional strategies for protein or other active ingredient stabilization may be employed.

The pharmaceutical compositions also may comprise suitable solid or gel phase carriers or excipients. Examples of such carriers or excipients include but are not limited to calcium carbonate, calcium phosphate, various sugars, starches, cellulose derivatives, gelatin, and polymers such as polyethylene glycols. Many of the active ingredients of the invention may be provided as salts with pharmaceutically compatible counter ions. Such pharmaceutically acceptable base addition salts are those salts which retain the biological effectiveness and properties of the free acids and which are obtained by reaction with inorganic or organic bases such as sodium hydroxide, magnesium hydroxide, ammonia,

trialkylamine, dialkylamine, monoalkylamine, dibasic amino acids, sodium acetate, potassium benzoate, triethanol amine and the like.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) or other active ingredient(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes on host cells will serve to present the peptide antigen(s) to T lymphocytes. The antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunoglobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be combined with the pharmaceutical composition of the invention.

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The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithins, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent Nos. 4,235,871; 4,501,728; 4,837,028; and 4,737,323, all of which are incorporated herein by reference.

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The amount of protein or other active ingredient of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein or other active ingredient of the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein or other active ingredient of the present invention and observe the patient's response. Larger doses of protein or other active ingredient of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01 µg to about 100 mg

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(preferably about 0.1 µg to about 10 mg, more preferably about 0.1 µg to about 1 mg) of protein or other active ingredient of the present invention per kg body weight. For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein or other active ingredient of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing or other active ingredient-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalcium phosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxyapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalcium phosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability. Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800 microns. In some applications, it will be useful to utilize

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a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcelluloses, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropyl-methylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent useful herein is 0.5-20 wt %, preferably 1-10 wt % based on total formulation weight, which represents the amount necessary to prevent desorption of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby providing the protein the opportunity to assist the osteogenic activity of the progenitor cells. In further compositions, proteins or other active ingredients of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF- α and TGF- β), and insulin-like growth factor (IGF).

The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins or other active ingredients of the present invention. The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I), to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy. Such polynucleotides can be introduced either in vivo or ex vivo into cells for expression in a

mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA). Cells may also be cultured ex vivo in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced in vivo for therapeutic purposes.

3.12.3 EFFECTIVE DOSAGE

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Pharmaceutical compositions suitable for use in the present invention include compositions wherein the active ingredients are contained in an effective amount to achieve its intended purpose. More specifically, a therapeutically effective amount means an amount effective to prevent development of or to alleviate the existing symptoms of the subject being treated. Determination of the effective amount is well within the capability of those skilled in the art, especially in light of the detailed disclosure provided herein. For any compound used in the method of the invention, the therapeutically effective dose can be estimated initially from appropriate in vitro assays. For example, a dose can be formulated in animal models to achieve a circulating concentration range that can be used to more accurately determine useful doses in humans. For example, a dose can be formulated in animal models to achieve a circulating concentration range that includes the IC₅₀ as determined in cell culture (*i.e.*, the concentration of the test compound which achieves a half-maximal inhibition of the protein's biological activity). Such information can be used to more accurately determine useful doses in humans.

A therapeutically effective dose refers to that amount of the compound that results in amelioration of symptoms or a prolongation of survival in a patient. Toxicity and therapeutic efficacy of such compounds can be determined by standard pharmaceutical procedures in cell cultures or experimental animals, e.g., for determining the LD₅₀ (the dose lethal to 50% of the population) and the ED₅₀ (the dose therapeutically effective in 50% of the population). The dose ratio between toxic and therapeutic effects is the therapeutic index and it can be expressed as the ratio between LD₅₀ and ED₅₀. Compounds which exhibit high therapeutic indices are preferred. The data obtained from these cell culture assays and animal studies can be used in formulating a range of dosage for use in human. The dosage of such compounds lies preferably within a range of circulating concentrations that include the ED₅₀ with little or no toxicity. The dosage may vary within this range depending upon the dosage form employed and the route of administration utilized. The exact formulation, route of

administration and dosage can be chosen by the individual physician in view of the patient's condition. See, e.g., Fingl et al., 1975, in "The Pharmacological Basis of Therapeutics", Ch. 1 p.1. Dosage amount and interval may be adjusted individually to provide plasma levels of the active moiety which are sufficient to maintain the desired effects, or minimal effective concentration (MEC). The MEC will vary for each compound but can be estimated from in vitro data. Dosages necessary to achieve the MEC will depend on individual characteristics and route of administration. However, HPLC assays or bioassays can be used to determine plasma concentrations.

Dosage intervals can also be determined using MEC value. Compounds should be administered using a regimen which maintains plasma levels above the MEC for 10-90% of the time, preferably between 30-90% and most preferably between 50-90%. In cases of local administration or selective uptake, the effective local concentration of the drug may not be related to plasma concentration.

An exemplary dosage regimen for polypeptides or other compositions of the invention will be in the range of about $0.01~\mu g/kg$ to 100~mg/kg of body weight daily, with the preferred dose being about $0.1~\mu g/kg$ to 25~mg/kg of patient body weight daily, varying in adults and children. Dosing may be once daily, or equivalent doses may be delivered at longer or shorter intervals.

The amount of composition administered will, of course, be dependent on the subject being treated, on the subject's age and weight, the severity of the affliction, the manner of administration and the judgment of the prescribing physician.

3.12.4 PACKAGING

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The compositions may, if desired, be presented in a pack or dispenser device which may contain one or more unit dosage forms containing the active ingredient. The pack may, for example, comprise metal or plastic foil, such as a blister pack. The pack or dispenser device may be accompanied by instructions for administration. Compositions comprising a compound of the invention formulated in a compatible pharmaceutical carrier may also be prepared, placed in an appropriate container, and labeled for treatment of an indicated condition.

3.13 ANTIBODIES

Also included in the invention are antibodies to proteins, or fragments of proteins of the invention. The term "antibody" as used herein refers to immunoglobulin molecules and

immunologically active portions of immunoglobulin (Ig) molecules, i.e., molecules that contain an antigen-binding site that specifically binds (immunoreacts with) an antigen. Such antibodies include, but are not limited to, polyclonal, monoclonal, chimeric, single chain, F_{ab} , and $F_{(ab)2}$ fragments, and an F_{ab} expression library. In general, an antibody molecule obtained from humans relates to any of the classes IgG, IgM, IgA, IgE and IgD, which differ from one another by the nature of the heavy chain present in the molecule. Certain classes have subclasses as well, such as IgG_1 , IgG_2 , and others. Furthermore, in humans, the light chain may be a kappa chain or a lambda chain. Reference herein to antibodies includes a reference to all such classes, subclasses and types of human antibody species.

An isolated related protein of the invention may be intended to serve as an antigen, or a portion or fragment thereof, and additionally can be used as an immunogen to generate antibodies that immunospecifically bind the antigen, using standard techniques for polyclonal and monoclonal antibody preparation. The full-length protein can be used or, alternatively, the invention provides antigenic peptide fragments of the antigen for use as immunogens. An antigenic peptide fragment comprises at least 6 amino acid residues of the amino acid sequence of the full length protein, such as an amino acid sequence shown in SEQ ID NO: 949-1896, and encompasses an epitope thereof such that an antibody raised against the peptide forms a specific immune complex with the full length protein or with any fragment that contains the epitope. Preferably, the antigenic peptide comprises at least 10 amino acid residues, or at least 15 amino acid residues, or at least 20 amino acid residues, or at least 30 amino acid residues. Preferred epitopes encompassed by the antigenic peptide are regions of the protein that are located on its surface; commonly these are hydrophilic regions.

In certain embodiments of the invention, at least one epitope encompassed by the antigenic peptide is a region of alpha-2-macroglobulin-like protein that is located on the surface of the protein, e.g., a hydrophilic region. A hydrophobicity analysis of the human related protein sequence will indicate which regions of a related protein are particularly hydrophilic and, therefore, are likely to encode surface residues useful for targeting antibody production. As a means for targeting antibody production, hydropathy plots showing regions of hydrophilicity and hydrophobicity may be generated by any method well known in the art, including, for example, the Kyte Doolittle or the Hopp Woods methods, either with or without Fourier transformation. See, e.g., Hopp and Woods, 1981, Proc. Nat. Acad. Sci. USA 78: 3824-3828; Kyte and Doolittle 1982, J. Mol. Biol. 157: 105-142, each of which is incorporated herein by reference in its entirety. Antibodies that are specific for one or more

domains within an antigenic protein, or derivatives, fragments, analogs or homologs thereof, are also provided herein.

A protein of the invention, or a derivative, fragment, analog, homolog or ortholog thereof, may be utilized as an immunogen in the generation of antibodies that immunospecifically bind these protein components.

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The term "specific for" indicates that the variable regions of the antibodies of the invention recognize and bind polypeptides of the invention exclusively (i.e., able to distinguish the polypeptide of the invention from other similar polypeptides despite sequence identity, homology, or similarity found in the family of polypeptides), but may also interact with other proteins (for example, S. aureus protein A or other antibodies in ELISA techniques) through interactions with sequences outside the variable region of the antibodies, and in particular, in the constant region of the molecule. Screening assays to determine binding specificity of an antibody of the invention are well known and routinely practiced in the art. For a comprehensive discussion of such assays, see Harlow et al. (Eds), Antibodies A Laboratory Manual; Cold Spring Harbor Laboratory; Cold Spring Harbor, NY (1988). Chapter 6. Antibodies that recognize and bind fragments of the polypeptides of the invention are also contemplated, provided that the antibodies are first and foremost specific for, as defined above, full-length polypeptides of the invention. As with antibodies that are specific for full length polypeptides of the invention, antibodies of the invention that recognize fragments are those which can distinguish polypeptides from the same family of polypeptides despite inherent sequence identity, homology, or similarity found in the family of proteins.

Antibodies of the invention are useful for, for example, therapeutic purposes (by modulating activity of a polypeptide of the invention), diagnostic purposes to detect or quantitate a polypeptide of the invention, as well as purification of a polypeptide of the invention. Kits comprising an antibody of the invention for any of the purposes described herein are also comprehended. In general, a kit of the invention also includes a control antigen for which the antibody is immunospecific. The invention further provides a hybridoma that produces an antibody according to the invention. Antibodies of the invention are useful for detection and/or purification of the polypeptides of the invention.

Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells,

neutralizing monoclonal antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

The labeled antibodies of the present invention can be used for *in vitro*, *in vivo*, and *in situ* assays to identify cells or tissues in which a fragment of the polypeptide of interest is expressed. The antibodies may also be used directly in therapies or other diagnostics. The present invention further provides the above-described antibodies immobilized on a solid support. Examples of such solid supports include plastics such as polycarbonate, complex carbohydrates such as agarose and Sepharose®, acrylic resins and such as polyacrylamide and latex beads. Techniques for coupling antibodies to such solid supports are well known in the art (Weir, D.M. et al., "Handbook of Experimental Immunology" 4th Ed., Blackwell Scientific Publications, Oxford, England, Chapter 10 (1986); Jacoby, W.D. et al., Meth. Enzym. 34 Academic Press, N.Y. (1974)). The immobilized antibodies of the present invention can be used for *in vitro*, *in vivo*, and *in situ* assays as well as for immuno-affinity purification of the proteins of the present invention.

Various procedures known within the art may be used for the production of polyclonal or monoclonal antibodies directed against a protein of the invention, or against derivatives, fragments, analogs homologs or orthologs thereof (see, for example, Antibodies: A Laboratory Manual, Harlow E, and Lane D, 1988, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, incorporated herein by reference). Some of these antibodies are discussed below.

3.13.1 POLYCLONAL ANTIBODIES

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For the production of polyclonal antibodies, various suitable host animals (e.g., rabbit, goat, mouse or other mammal) may be immunized by one or more injections with the native protein, a synthetic variant thereof, or a derivative of the foregoing. An appropriate immunogenic preparation can contain, for example, the naturally occurring immunogenic protein, a chemically synthesized polypeptide representing the immunogenic protein, or a recombinantly expressed immunogenic protein. Furthermore, the protein may be conjugated to a second protein known to be immunogenic in the mammal being immunized. Examples of such immunogenic proteins include but are not limited to keyhole limpet hemocyanin, serum albumin, bovine thyroglobulin, and soybean trypsin inhibitor. The preparation can further include an adjuvant. Various adjuvants used to increase the immunological response include, but are not limited to, Freund's (complete and incomplete), mineral gels (e.g.,

aluminum hydroxide), surface-active substances (e.g., lysolecithin, pluronic polyols, polyanions, peptides, oil emulsions, dinitrophenol, etc.), adjuvants usable in humans such as Bacille Calmette-Guerin and Corynebacterium parvum, or similar immunostimulatory agents. Additional examples of adjuvants that can be employed include MPL-TDM adjuvant (monophosphoryl Lipid A, synthetic trehalose dicorynomycolate).

The polyclonal antibody molecules directed against the immunogenic protein can be isolated from the mammal (e.g., from the blood) and further purified by well known techniques, such as affinity chromatography using protein A or protein G, which provide primarily the IgG fraction of immune serum. Subsequently, or alternatively, the specific antigen which is the target of the immunoglobulin sought, or an epitope thereof, may be immobilized on a column to purify the immune specific antibody by immunoaffinity chromatography. Purification of immunoglobulins is discussed, for example, by D. Wilkinson (The Scientist, published by The Scientist, Inc., Philadelphia PA, Vol. 14, No. 8 (April 17, 2000), pp. 25-28).

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3.13.2 MONOCLONAL ANTIBODIES

The term "monoclonal antibody" (MAb) or "monoclonal antibody composition", as used herein, refers to a population of antibody molecules that contain only one molecular species of antibody molecule consisting of a unique light chain gene product and a unique heavy chain gene product. In particular, the complementarity determining regions (CDRs) of the monoclonal antibody are identical in all the molecules of the population. MAbs thus contain an antigen-binding site capable of immunoreacting with a particular epitope of the antigen characterized by a unique binding affinity for it.

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Monoclonal antibodies can be prepared using hybridoma methods, such as those described by Kohler and Milstein, Nature, 256:495 (1975). In a hybridoma method, a mouse, hamster, or other appropriate host animal, is typically immunized with an immunizing agent to elicit lymphocytes that produce or are capable of producing antibodies that will specifically bind to the immunizing agent. Alternatively, the lymphocytes can be immunized in vitro.

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The immunizing agent will typically include the protein antigen, a fragment thereof or a fusion protein thereof. Generally, either peripheral blood lymphocytes are used if cells of human origin are desired, or spleen cells or lymph node cells are used if non-human mammalian sources are desired. The lymphocytes are then fused with an immortalized cell line using a suitable fusing agent, such as polyethylene glycol, to form a hybridoma cell (Goding, Monoclonal Antibodies: Principles and Practice, Academic Press, (1986) pp. 59-

103). Immortalized cell lines are usually transformed mammalian cells, particularly myeloma cells of rodent, bovine and human origin. Usually, rat or mouse myeloma cell lines are employed. The hybridoma cells can be cultured in a suitable culture medium that preferably contains one or more substances that inhibit the growth or survival of the unfused, immortalized cells. For example, if the parental cells lack the enzyme hypoxanthine guanine phosphoribosyl transferase (HGPRT or HPRT), the culture medium for the hybridomas typically will include hypoxanthine, aminopterin, and thymidine ("HAT medium"), which substances prevent the growth of HGPRT-deficient cells.

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Preferred immortalized cell lines are those that fuse efficiently, support stable high level expression of antibody by the selected antibody-producing cells, and are sensitive to a medium such as HAT medium. More preferred immortalized cell lines are murine myeloma lines, which can be obtained, for instance, from the Salk Institute Cell Distribution Center, San Diego, California and the American Type Culture Collection, Manassas, Virginia. Human myeloma and mouse-human heteromyeloma cell lines also have been described for the production of human monoclonal antibodies (Kozbor, <u>J. Immunol.</u>, <u>133</u>:3001 (1984); Brodeur et al., <u>Monoclonal Antibody Production Techniques and Applications</u>, Marcel Dekker, Inc., New York, (1987) pp. 51-63).

The culture medium in which the hybridoma cells are cultured can then be assayed for the presence of monoclonal antibodies directed against the antigen. Preferably, the binding specificity of monoclonal antibodies produced by the hybridoma cells is determined by immunoprecipitation or by an in vitro binding assay, such as radioimmunoassay (RIA) or enzyme-linked immunoabsorbent assay (ELISA). Such techniques and assays are known in the art. The binding affinity of the monoclonal antibody can, for example, be determined by the Scatchard analysis of Munson and Pollard, <u>Anal. Biochem.</u>, <u>107</u>:220 (1980). Preferably, antibodies having a high degree of specificity and a high binding affinity for the target antigen are isolated.

After the desired hybridoma cells are identified, the clones can be subcloned by limiting dilution procedures and grown by standard methods. Suitable culture media for this purpose include, for example, Dulbecco's Modified Eagle's Medium and RPMI-1640 medium. Alternatively, the hybridoma cells can be grown in vivo as ascites in a mammal.

The monoclonal antibodies secreted by the subclones can be isolated or purified from the culture medium or ascites fluid by conventional immunoglobulin purification procedures such as, for example, protein A-Sepharose, hydroxylapatite chromatography, gel electrophoresis, dialysis, or affinity chromatography.

The monoclonal antibodies can also be made by recombinant DNA methods, such as those described in U.S. Patent No. 4,816,567. DNA encoding the monoclonal antibodies of the invention can be readily isolated and sequenced using conventional procedures (e.g., by using oligonucleotide probes that are capable of binding specifically to genes encoding the heavy and light chains of murine antibodies). The hybridoma cells of the invention serve as a preferred source of such DNA. Once isolated, the DNA can be placed into expression vectors, which are then transfected into host cells such as simian COS cells, Chinese hamster ovary (CHO) cells, or myeloma cells that do not otherwise produce immunoglobulin protein, to obtain the synthesis of monoclonal antibodies in the recombinant host cells. The DNA also can be modified, for example, by substituting the coding sequence for human heavy and light chain constant domains in place of the homologous murine sequences (U.S. Patent No. 4,816,567; Morrison, Nature 368, 812-13 (1994)) or by covalently joining to the immunoglobulin coding sequence all or part of the coding sequence for a nonimmunoglobulin polypeptide. Such a non-immunoglobulin polypeptide can be substituted for the constant domains of an antibody of the invention, or can be substituted for the variable domains of one antigen-combining site of an antibody of the invention to create a chimeric bivalent antibody.

3.13.3 HUMANIZED ANTIBODIES

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The antibodies directed against the protein antigens of the invention can further comprise humanized antibodies or human antibodies. These antibodies are suitable for administration to humans without engendering an immune response by the human against the administered immunoglobulin. Humanized forms of antibodies are chimeric immunoglobulins, immunoglobulin chains or fragments thereof (such as Fv, Fab, Fab', F(ab')₂ or other antigen-binding subsequences of antibodies) that are principally comprised of the sequence of a human immunoglobulin, and contain minimal sequence derived from a non-human immunoglobulin. Humanization can be performed following the method of Winter and co-workers (Jones et al., Nature, 321:522-525 (1986); Riechmann et al., Nature, 332:323-327 (1988); Verhoeyen et al., Science, 239:1534-1536 (1988)), by substituting rodent CDRs or CDR sequences for the corresponding sequences of a human antibody. (See also U.S. Patent No. 5,225,539). In some instances, Fv framework residues of the human immunoglobulin are replaced by corresponding non-human residues. Humanized antibodies can also comprise residues that are found neither in the recipient antibody will comprise

substantially all of at least one, and typically two, variable domains, in which all or substantially all of the CDR regions correspond to those of a non-human immunoglobulin and all or substantially all of the framework regions are those of a human immunoglobulin consensus sequence. The humanized antibody optimally also will comprise at least a portion of an immunoglobulin constant region (Fc), typically that of a human immunoglobulin (Jones et al., 1986; Riechmann et al., 1988; and Presta, Curr. Op. Struct. Biol., 2:593-596 (1992)).

3.13.4 HUMAN ANTIBODIES

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Fully human antibodies relate to antibody molecules in which essentially the entire sequences of both the light chain and the heavy chain, including the CDRs, arise from human genes. Such antibodies are termed "human antibodies", or "fully human antibodies" herein. Human monoclonal antibodies can be prepared by the trioma technique; the human B-cell hybridoma technique (see Kozbor, et al., 1983 Immunol Today 4: 72) and the EBV hybridoma technique to produce human monoclonal antibodies (see Cole, et al., 1985 In: MONOCLONAL ANTIBODIES AND CANCER THERAPY, Alan R. Liss, Inc., pp. 77-96). Human monoclonal antibodies may be utilized in the practice of the present invention and may be produced by using human hybridomas (see Cote, et al., 1983. Proc Natl Acad Sci USA 80: 2026-2030) or by transforming human B-cells with Epstein Barr Virus in vitro (see Cole, et al., 1985 In: MONOCLONAL ANTIBODIES AND CANCER THERAPY, Alan R. Liss, Inc., pp. 77-96).

In addition, human antibodies can also be produced using additional techniques, including phage display libraries (Hoogenboom and Winter, <u>J. Mol. Biol.</u>, <u>227</u>:381 (1991); Marks et al., <u>J. Mol. Biol.</u>, <u>222</u>:581 (1991)). Similarly, human antibodies can be made by introducing human immunoglobulin loci into transgenic animals, e.g., mice in which the endogenous immunoglobulin genes have been partially or completely inactivated. Upon challenge, human antibody production is observed, which closely resembles that seen in humans in all respects, including gene rearrangement, assembly, and antibody repertoire. This approach is described, for example, in U.S. Patent Nos. 5,545,807; 5,545,806; 5,569,825; 5,625,126; 5,633,425; 5,661,016, and in Marks et al. (<u>Bio/Technology 10</u>, 779-783 (1992)); Lonberg et al. (<u>Nature 368</u> 856-859 (1994)); Morrison (Nature <u>368</u>, 812-13 (1994)); Fishwild et al, (<u>Nature Biotechnology 14</u>, 845-51 (1996)); Neuberger (<u>Nature Biotechnology 14</u>, 826 (1996)); and Lonberg and Huszar (<u>Intern. Rev. Immunol. 13</u> 65-93 (1995)).

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Human antibodies may additionally be produced using transgenic nonhuman animals that are modified so as to produce fully human antibodies rather than the animal's endogenous antibodies in response to challenge by an antigen. (See PCT publication WO94/02602). The endogenous genes encoding the heavy and light immunoglobulin chains in the nonhuman host have been incapacitated, and active loci encoding human heavy and light chain immunoglobulins are inserted into the host's genome. The human genes are incorporated, for example, using yeast artificial chromosomes containing the requisite human DNA segments. An animal which provides all the desired modifications is then obtained as progeny by crossbreeding intermediate transgenic animals containing fewer than the full complement of the modifications. The preferred embodiment of such a nonhuman animal is a mouse, and is termed the XenomouseTM as disclosed in PCT publications WO 96/33735 and WO 96/34096. This animal produces B cells that secrete fully human immunoglobulins. The antibodies can be obtained directly from the animal after immunization with an immunogen of interest, as, for example, a preparation of a polyclonal antibody, or alternatively from immortalized B cells derived from the animal, such as hybridomas producing monoclonal antibodies. Additionally, the genes encoding the immunoglobulins with human variable regions can be recovered and expressed to obtain the antibodies directly, or can be further modified to obtain analogs of antibodies such as, for example, single chain Fv molecules.

An example of a method of producing a nonhuman host, exemplified as a mouse, lacking expression of an endogenous immunoglobulin heavy chain is disclosed in U.S. Patent No. 5,939,598. It can be obtained by a method including deleting the J segment genes from at least one endogenous heavy chain locus in an embryonic stem cell to prevent rearrangement of the locus and to prevent formation of a transcript of a rearranged immunoglobulin heavy chain locus, the deletion being effected by a targeting vector containing a gene encoding a selectable marker; and producing from the embryonic stem cell a transgenic mouse whose somatic and germ cells contain the gene encoding the selectable marker.

A method for producing an antibody of interest, such as a human antibody, is disclosed in U.S. Patent No. 5,916,771. It includes introducing an expression vector that contains a nucleotide sequence encoding a heavy chain into one mammalian host cell in culture, introducing an expression vector containing a nucleotide sequence encoding a light chain into another mammalian host cell, and fusing the two cells to form a hybrid cell. The hybrid cell expresses an antibody containing the heavy chain and the light chain.

In a further improvement on this procedure, a method for identifying a clinically relevant epitope on an immunogen, and a correlative method for selecting an antibody that binds immunospecifically to the relevant epitope with high affinity, are disclosed in PCT publication WO 99/53049.

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3.13.5 FAB FRAGMENTS AND SINGLE CHAIN ANTIBODIES

According to the invention, techniques can be adapted for the production of single-chain antibodies specific to an antigenic protein of the invention (see e.g., U.S. Patent No. 4,946,778). In addition, methods can be adapted for the construction of F_{ab} expression libraries (see e.g., Huse, et al., 1989 Science 246: 1275-1281) to allow rapid and effective identification of monoclonal F_{ab} fragments with the desired specificity for a protein or derivatives, fragments, analogs or homologs thereof. Antibody fragments that contain the idiotypes to a protein antigen may be produced by techniques known in the art including, but not limited to: (i) an $F_{(ab)/2}$ fragment produced by pepsin digestion of an antibody molecule; (ii) an F_{ab} fragment generated by reducing the disulfide bridges of an $F_{(ab)/2}$ fragment; (iii) an F_{ab} fragment generated by the treatment of the antibody molecule with papain and a reducing agent and (iv) F_{v} fragments.

3.13.6 BISPECIFIC ANTIBODIES

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Bispecific antibodies are monoclonal, preferably human or humanized, antibodies that have binding specificities for at least two different antigens. In the present case, one of the binding specificities is for an antigenic protein of the invention. The second binding target is any other antigen, and advantageously is a cell-surface protein or receptor or receptor subunit.

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Methods for making bispecific antibodies are known in the art. Traditionally, the recombinant production of bispecific antibodies is based on the co-expression of two immunoglobulin heavy-chain/light-chain pairs, where the two heavy chains have different specificities (Milstein and Cuello, Nature, 305:537-539 (1983)). Because of the random assortment of immunoglobulin heavy and light chains, these hybridomas (quadromas) produce a potential mixture of ten different antibody molecules, of which only one has the correct bispecific structure. The purification of the correct molecule is usually accomplished by affinity chromatography steps. Similar procedures are disclosed in WO 93/08829, published 13 May 1993, and in Traunecker et al., 1991 EMBO J., 10:3655-3659.

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Antibody variable domains with the desired binding specificities (antibody-antigen combining sites) can be fused to immunoglobulin constant domain sequences. The fusion

preferably is with an immunoglobulin heavy-chain constant domain, comprising at least part of the hinge, CH2, and CH3 regions. It is preferred to have the first heavy-chain constant region (CH1) containing the site necessary for light-chain binding present in at least one of the fusions. DNAs encoding the immunoglobulin heavy-chain fusions and, if desired, the immunoglobulin light chain, are inserted into separate expression vectors, and are cotransfected into a suitable host organism. For further details of generating bispecific antibodies see, for example, Suresh et al., Methods in Enzymology, 121:210 (1986).

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According to another approach described in WO 96/27011, the interface between a pair of antibody molecules can be engineered to maximize the percentage of heterodimers that are recovered from recombinant cell culture. The preferred interface comprises at least a part of the CH3 region of an antibody constant domain. In this method, one or more small amino acid side chains from the interface of the first antibody molecule are replaced with larger side chains (e.g. tyrosine or tryptophan). Compensatory "cavities" of identical or similar size to the large side chain(s) are created on the interface of the second antibody molecule by replacing large amino acid side chains with smaller ones (e.g. alanine or threonine). This provides a mechanism for increasing the yield of the heterodimer over other unwanted end-products such as homodimers.

Bispecific antibodies can be prepared as full length antibodies or antibody fragments (e.g. F(ab')₂ bispecific antibodies). Techniques for generating bispecific antibodies from antibody fragments have been described in the literature. For example, bispecific antibodies can be prepared using chemical linkage. Brennan et al., Science 229:81 (1985) describe a procedure wherein intact antibodies are proteolytically cleaved to generate F(ab')₂ fragments. These fragments are reduced in the presence of the dithiol complexing agent sodium arsenite to stabilize vicinal dithiols and prevent intermolecular disulfide formation. The Fab' fragments generated are then converted to thionitrobenzoate (TNB) derivatives. One of the Fab'-TNB derivatives is then reconverted to the Fab'-thiol by reduction with mercaptoethylamine and is mixed with an equimolar amount of the other Fab'-TNB derivative to form the bispecific antibody. The bispecific antibodies produced can be used as agents for the selective immobilization of enzymes.

Additionally, Fab' fragments can be directly recovered from E. coli and chemically coupled to form bispecific antibodies. Shalaby et al., J. Exp. Med. 175:217-225 (1992) describe the production of a fully humanized bispecific antibody F(ab')₂ molecule. Each Fab' fragment was separately secreted from E. coli and subjected to directed chemical coupling in vitro to form the bispecific antibody. The bispecific antibody thus formed was

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able to bind to cells overexpressing the ErbB2 receptor and normal human T cells, as well as trigger the lytic activity of human cytotoxic lymphocytes against human breast tumor targets.

Various techniques for making and isolating bispecific antibody fragments directly from recombinant cell culture have also been described. For example, bispecific antibodies have been produced using leucine zippers. Kostelny et al., J. Immunol. 148(5):1547-1553 (1992). The leucine zipper peptides from the Fos and Jun proteins were linked to the Fab' portions of two different antibodies by gene fusion. The antibody homodimers were reduced at the hinge region to form monomers and then re-oxidized to form the antibody heterodimers. This method can also be utilized for the production of antibody homodimers. The "diabody" technology described by Hollinger et al., Proc. Natl. Acad. Sci. USA 90:6444-6448 (1993) has provided an alternative mechanism for making bispecific antibody fragments. The fragments comprise a heavy-chain variable domain (V_H) connected to a light-chain variable domain (V_L) by a linker which is too short to allow pairing between the two domains on the same chain. Accordingly, the V_H and V_L domains of one fragment are forced to pair with the complementary V₁ and V_H domains of another fragment, thereby forming two antigen-binding sites. Another strategy for making bispecific antibody fragments by the use of single-chain Fv (sFv) dimers has also been reported. See, Gruber et al., J. Immunol. 152:5368 (1994).

Antibodies with more than two valencies are contemplated. For example, trispecific antibodies can be prepared. Tutt et al., <u>J. Immunol.</u> 147:60 (1991).

Exemplary bispecific antibodies can bind to two different epitopes, at least one of which originates in the protein antigen of the invention. Alternatively, an anti-antigenic arm of an immunoglobulin molecule can be combined with an arm which binds to a triggering molecule on a leukocyte such as a T-cell receptor molecule (e.g. CD2, CD3, CD28, or B7), or Fc receptors for IgG (FcyR), such as FcyRI (CD64), FcyRII (CD32) and FcyRII (CD16) so as to focus cellular defense mechanisms to the cell expressing the particular antigen. Bispecific antibodies can also be used to direct cytotoxic agents to cells which express a particular antigen. These antibodies possess an antigen-binding arm and an arm which binds a cytotoxic agent or a radionuclide chelator, such as EOTUBE, DPTA, DOTA, or TETA. Another bispecific antibody of interest binds the protein antigen described herein and further binds tissue factor (TF).

3.13.7 HETEROCONJUGATE ANTIBODIES

Heteroconjugate antibodies are also within the scope of the present invention. Heteroconjugate antibodies are composed of two covalently joined antibodies. Such antibodies have, for example, been proposed to target immune system cells to unwanted cells (U.S. Patent No. 4,676,980), and for treatment of HIV infection (WO 91/00360; WO 92/200373; EP 03089). It is contemplated that the antibodies can be prepared in vitro using known methods in synthetic protein chemistry, including those involving crosslinking agents. For example, immunotoxins can be constructed using a disulfide exchange reaction or by forming a thioether bond. Examples of suitable reagents for this purpose include iminothiolate and methyl-4-mercaptobutyrimidate and those disclosed, for example, in U.S. Patent No. 4,676,980.

3.13.8 EFFECTOR FUNCTION ENGINEERING

It can be desirable to modify the antibody of the invention with respect to effector function, so as to enhance, e.g., the effectiveness of the antibody in treating cancer. For example, cysteine residue(s) can be introduced into the Fc region, thereby allowing interchain disulfide bond formation in this region. The homodimeric antibody thus generated can have improved internalization capability and/or increased complement-mediated cell killing and antibody-dependent cellular cytotoxicity (ADCC). See Caron et al., J. Exp Med., 176: 1191-1195 (1992) and Shopes, J. Immunol., 148: 2918-2922 (1992). Homodimeric antibodies with enhanced anti-tumor activity can also be prepared using heterobifunctional cross-linkers as described in Wolff et al. Cancer Research, 53: 2560-2565 (1993). Alternatively, an antibody can be engineered that has dual Fc regions and can thereby have enhanced complement lysis and ADCC capabilities. See Stevenson et al., Anti-Cancer Drug Design, 3: 219-230 (1989).

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3.13.9 IMMUNOCONJUGATES

The invention also pertains to immunoconjugates comprising an antibody conjugated to a cytotoxic agent such as a chemotherapeutic agent, toxin (e.g., an enzymatically active toxin of bacterial, fungal, plant, or animal origin, or fragments thereof), or a radioactive isotope (i.e., a radioconjugate).

Chemotherapeutic agents useful in the generation of such immunoconjugates have been described above. Enzymatically active toxins and fragments thereof that can be used include diphtheria A chain, nonbinding active fragments of diphtheria toxin, exotoxin A chain (from Pseudomonas aeruginosa), ricin A chain, abrin A chain, modeccin A chain,

alpha-sarcin, Aleurites fordii proteins, dianthin proteins, Phytolaca americana proteins (PAPI, PAPII, and PAP-S), momordica charantia inhibitor, curcin, crotin, sapaonaria officinalis inhibitor, gelonin, mitogellin, restrictocin, phenomycin, enomycin, and the tricothecenes. A variety of radionuclides are available for the production of radioconjugated antibodies. Examples include ²¹²Bi, ¹³¹I, ¹³¹In, ⁹⁰Y, and ¹⁸⁶Re.

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Conjugates of the antibody and cytotoxic agent are made using a variety of bifunctional protein-coupling agents such as N-succinimidyl-3-(2-pyridyldithiol) propionate (SPDP), iminothiolane (IT), bifunctional derivatives of imidoesters (such as dimethyl adipimidate HCL), active esters (such as disuccinimidyl suberate), aldehydes (such as glutareldehyde), bis-azido compounds (such as bis (p-azidobenzoyl) hexanediamine), bis-diazonium derivatives (such as bis-(p-diazoniumbenzoyl)-ethylenediamine), diisocyanates (such as tolyene 2,6-diisocyanate), and bis-active fluorine compounds (such as 1,5-difluoro-2,4-dinitrobenzene). For example, a ricin immunotoxin can be prepared as described in Vitetta et al., Science, 238: 1098 (1987). Carbon-14-labeled 1-isothiocyanatobenzyl-3-methyldiethylene triaminepentaacetic acid (MX-DTPA) is an exemplary chelating agent for conjugation of radionucleotide to the antibody. See WO94/11026.

In another embodiment, the antibody can be conjugated to a "receptor" (such streptavidin) for utilization in tumor pretargeting wherein the antibody-receptor conjugate is administered to the patient, followed by removal of unbound conjugate from the circulation using a clearing agent and then administration of a "ligand" (e.g., avidin) that is in turn conjugated to a cytotoxic agent.

3.14 COMPUTER READABLE SEQUENCES

In one application of this embodiment, a nucleotide sequence of the present invention can be recorded on computer readable media. As used herein, "computer readable media" refers to any medium which can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media, such as floppy discs, hard disc storage medium, and magnetic tape; optical storage media such as CD-ROM; electrical storage media such as RAM and ROM; and hybrids of these categories such as magnetic/optical storage media. A skilled artisan can readily appreciate how any of the presently known computer readable mediums can be used to create a manufacture comprising computer readable medium having recorded thereon a nucleotide sequence of the present invention. As used herein, "recorded" refers to a process for storing information on computer

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readable medium. A skilled artisan can readily adopt any of the presently known methods for recording information on computer readable medium to generate manufactures comprising the nucleotide sequence information of the present invention.

A variety of data storage structures are available to a skilled artisan for creating a computer readable medium having recorded thereon a nucleotide sequence of the present invention. The choice of the data storage structure will generally be based on the means chosen to access the stored information. In addition, a variety of data processor programs and formats can be used to store the nucleotide sequence information of the present invention on computer readable medium. The sequence information can be represented in a word processing text file, formatted in commercially-available software such as WordPerfect and Microsoft Word, or represented in the form of an ASCII file, stored in a database application, such as DB2, Sybase, Oracle, or the like. A skilled artisan can readily adapt any number of data processor structuring formats (e.g. text file or database) in order to obtain computer readable medium having recorded thereon the nucleotide sequence information of the present invention.

By providing any of the nucleotide sequences SEQ ID NOs: 1 - 948 or a representative fragment thereof; or a nucleotide sequence at least 95% identical to any of the nucleotide sequences of SEQ ID NOs: 1 - 948 in computer readable form, a skilled artisan can routinely access the sequence information for a variety of purposes. Computer software is publicly available which allows a skilled artisan to access sequence information provided in a computer readable medium. The examples which follow demonstrate how software which implements the BLAST (Altschul et al., J. Mol. Biol. 215:403-410 (1990)) and BLAZE (Brutlag et al., Comp. Chem. 17:203-207 (1993)) search algorithms on a Sybase system is used to identify open reading frames (ORFs) within a nucleic acid sequence. Such ORFs may be protein encoding fragments and may be useful in producing commercially important proteins such as enzymes used in fermentation reactions and in the production of commercially useful metabolites.

As used herein, "a computer-based system" refers to the hardware means, software means, and data storage means used to analyze the nucleotide sequence information of the present invention. The minimum hardware means of the computer-based systems of the present invention comprises a central processing unit (CPU), input means, output means, and data storage means. A skilled artisan can readily appreciate that any one of the currently available computer-based systems are suitable for use in the present invention. As stated above, the computer-based systems of the present invention comprise a data storage means

having stored therein a nucleotide sequence of the present invention and the necessary hardware means and software means for supporting and implementing a search means. As used herein, "data storage means" refers to memory which can store nucleotide sequence information of the present invention, or a memory access means which can access manufactures having recorded thereon the nucleotide sequence information of the present invention.

As used herein, "search means" refers to one or more programs which are implemented on the computer-based system to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of a known sequence which match a particular target sequence or target motif. A variety of known algorithms are disclosed publicly and a variety of commercially available software for conducting search means are and can be used in the computer-based systems of the present invention. Examples of such software includes, but is not limited to, Smith-Waterman, MacPattern (EMBL), BLASTN and BLASTA (NPOLYPEPTIDEIA). A skilled artisan can readily recognize that any one of the available algorithms or implementing software packages for conducting homology searches can be adapted for use in the present computer-based systems. As used herein, a "target sequence" can be any nucleic acid or amino acid sequence of six or more nucleotides or two or more amino acids. A skilled artisan can readily recognize that the longer a target sequence is, the less likely a target sequence will be present as a random occurrence in the database. The most preferred sequence length of a target sequence is from about 10 to 300 amino acids, more preferably from about 30 to 100 nucleotide residues. However, it is well recognized that searches for commercially important fragments, such as sequence fragments involved in

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As used herein, "a target structural motif," or "target motif," refers to any rationally selected sequence or combination of sequences in which the sequence(s) are chosen based on a three-dimensional configuration which is formed upon the folding of the target motif.

There are a variety of target motifs known in the art. Protein target motifs include, but are not limited to, enzyme active sites and signal sequences. Nucleic acid target motifs include, but are not limited to, promoter sequences, hairpin structures and inducible expression elements (protein binding sequences).

3.15 TRIPLE HELIX FORMATION

gene expression and protein processing, may be of shorter length.

In addition, the fragments of the present invention, as broadly described, can be used to control gene expression through triple helix formation or antisense DNA or RNA, both of which methods are based on the binding of a polynucleotide sequence to DNA or RNA. Polynucleotides suitable for use in these methods are preferably 20 to 40 bases in length and are designed to be complementary to a region of the gene involved in transcription (triple helix - see Lee et al., Nucl. Acids Res. 6:3073 (1979); Cooney et al., Science 15241:456 (1988); and Dervan et al., Science 251:1360 (1991)) or to the mRNA itself (antisense - Olmno, J. Neurochem. 56:560 (1991); Oligodeoxynucleotides as Antisense Inhibitors of Gene Expression, CRC Press, Boca Raton, FL (1988)). Triple helix-formation optimally results in a shut-off of RNA transcription from DNA, while antisense RNA hybridization blocks translation of an mRNA molecule into polypeptide. Both techniques have been demonstrated to be effective in model systems. Information contained in the sequences of the present invention is necessary for the design of an antisense or triple helix oligonucleotide.

3.16 DIAGNOSTIC ASSAYS AND KITS

The present invention further provides methods to identify the presence or expression of one of the ORFs of the present invention, or homolog thereof, in a test sample, using a nucleic acid probe or antibodies of the present invention, optionally conjugated or otherwise associated with a suitable label.

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In general, methods for detecting a polynucleotide of the invention can comprise contacting a sample with a compound that binds to and forms a complex with the polynucleotide for a period sufficient to form the complex, and detecting the complex, so that if a complex is detected, a polynucleotide of the invention is detected in the sample. Such methods can also comprise contacting a sample under stringent hybridization conditions with nucleic acid primers that anneal to a polynucleotide of the invention under such conditions, and amplifying annealed polynucleotides, so that if a polynucleotide is amplified, a polynucleotide of the invention is detected in the sample.

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In general, methods for detecting a polypeptide of the invention can comprise contacting a sample with a compound that binds to and forms a complex with the polypeptide for a period sufficient to form the complex, and detecting the complex, so that if a complex is detected, a polypeptide of the invention is detected in the sample.

In detail, such methods comprise incubating a test sample with one or more of the antibodies or one or more of the nucleic acid probes of the present invention and assaying for binding of the nucleic acid probes or antibodies to components within the test sample.

Conditions for incubating a nucleic acid probe or antibody with a test sample vary. Incubation conditions depend on the format employed in the assay, the detection methods employed, and the type and nature of the nucleic acid probe or antibody used in the assay. One skilled in the art will recognize that any one of the commonly available hybridization, amplification or immunological assay formats can readily be adapted to employ the nucleic acid probes or antibodies of the present invention. Examples of such assays can be found in Chard, T., An Introduction to Radioimmunoassay and Related Techniques, Elsevier Science Publishers, Amsterdam, The Netherlands (1986); Bullock, G.R. et al., Techniques in Immunocytochemistry, Academic Press, Orlando, FL Vol. 1 (1982), Vol. 2 (1983), Vol. 3 (1985); Tijssen, P., Practice and Theory of immunoassays: Laboratory Techniques in Biochemistry and Molecular Biology, Elsevier Science Publishers, Amsterdam, The Netherlands (1985). The test samples of the present invention include cells, protein or membrane extracts of cells, or biological fluids such as sputum, blood, serum, plasma, or urine. The test sample used in the above-described method will vary based on the assay format, nature of the detection method and the tissues, cells or extracts used as the sample to be assayed. Methods for preparing protein extracts or membrane extracts of cells are well known in the art and can be readily be adapted in order to obtain a sample which is compatible with the system utilized.

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In another embodiment of the present invention, kits are provided which contain the necessary reagents to carry out the assays of the present invention. Specifically, the invention provides a compartment kit to receive, in close confinement, one or more containers which comprises: (a) a first container comprising one of the probes or antibodies of the present invention; and (b) one or more other containers comprising one or more of the following: wash reagents, reagents capable of detecting presence of a bound probe or antibody.

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In detail, a compartment kit includes any kit in which reagents are contained in separate containers. Such containers include small glass containers, plastic containers or strips of plastic or paper. Such containers allows one to efficiently transfer reagents from one compartment to another compartment such that the samples and reagents are not cross-contaminated, and the agents or solutions of each container can be added in a quantitative fashion from one compartment to another. Such containers will include a container which will accept the test sample, a container which contains the antibodies used in the assay, containers which contain wash reagents (such as phosphate buffered saline, Tris-buffers, etc.), and containers which contain the reagents used to detect the bound

antibody or probe. Types of detection reagents include labeled nucleic acid probes, labeled secondary antibodies, or in the alternative, if the primary antibody is labeled, the enzymatic, or antibody binding reagents which are capable of reacting with the labeled antibody. One skilled in the art will readily recognize that the disclosed probes and antibodies of the present invention can be readily incorporated into one of the established kit formats which are well known in the art.

3.17 MEDICAL IMAGING

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The novel polypeptides and binding partners of the invention are useful in medical imaging of sites expressing the molecules of the invention (e.g., where the polypeptide of the invention is involved in the immune response, for imaging sites of inflammation or infection). See, e.g., Kunkel et al., U.S. Pat. NO. 5,413,778. Such methods involve chemical attachment of a labeling or imaging agent, administration of the labeled polypeptide to a subject in a pharmaceutically acceptable carrier, and imaging the labeled polypeptide *in vivo* at the target site.

3.18 SCREENING ASSAYS

Using the isolated proteins and polynucleotides of the invention, the present invention further provides methods of obtaining and identifying agents which bind to a polypeptide encoded by an ORF corresponding to any of the nucleotide sequences set forth in SEQ ID NOs: 1 - 948, or bind to a specific domain of the polypeptide encoded by the nucleic acid. In detail, said method comprises the steps of:

- (a) contacting an agent with an isolated protein encoded by an ORF of the present invention, or nucleic acid of the invention; and
 - (b) determining whether the agent binds to said protein or said nucleic acid.

In general, therefore, such methods for identifying compounds that bind to a polynucleotide of the invention can comprise contacting a compound with a polynucleotide of the invention for a time sufficient to form a polynucleotide/compound complex, and detecting the complex, so that if a polynucleotide/compound complex is detected, a compound that binds to a polynucleotide of the invention is identified.

Likewise, in general, therefore, such methods for identifying compounds that bind to a polypeptide of the invention can comprise contacting a compound with a polypeptide of the invention for a time sufficient to form a polypeptide/compound complex, and detecting the

complex, so that if a polypeptide/compound complex is detected, a compound that binds to a polynucleotide of the invention is identified.

Methods for identifying compounds that bind to a polypeptide of the invention can also comprise contacting a compound with a polypeptide of the invention in a cell for a time sufficient to form a polypeptide/compound complex, wherein the complex drives expression of a receptor gene sequence in the cell, and detecting the complex by detecting reporter gene sequence expression, so that if a polypeptide/compound complex is detected, a compound that binds a polypeptide of the invention is identified.

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Compounds identified via such methods can include compounds which modulate the activity of a polypeptide of the invention (that is, increase or decrease its activity, relative to activity observed in the absence of the compound). Alternatively, compounds identified via such methods can include compounds which modulate the expression of a polynucleotide of the invention (that is, increase or decrease expression relative to expression levels observed in the absence of the compound). Compounds, such as compounds identified via the methods of the invention, can be tested using standard assays well known to those of skill in the art for their ability to modulate activity/expression.

The agents screened in the above assay can be, but are not limited to, peptides, carbohydrates, vitamin derivatives, or other pharmaceutical agents. The agents can be selected and screened at random or rationally selected or designed using protein modeling techniques.

For random screening, agents such as peptides, carbohydrates, pharmaceutical agents and the like are selected at random and are assayed for their ability to bind to the protein encoded by the ORF of the present invention. Alternatively, agents may be rationally selected or designed. As used herein, an agent is said to be "rationally selected or designed" when the agent is chosen based on the configuration of the particular protein. For example, one skilled in the art can readily adapt currently available procedures to generate peptides, pharmaceutical agents and the like, capable of binding to a specific peptide sequence, in order to generate rationally designed antipeptide peptides, for example see Hurby et al., Application of Synthetic Peptides: Antisense Peptides," In Synthetic Peptides, A User's Guide, W.H. Freeman, NY (1992), pp. 289-307, and Kaspczak et al., Biochemistry 28:9230-8 (1989), or pharmaceutical agents, or the like.

In addition to the foregoing, one class of agents of the present invention, as broadly described, can be used to control gene expression through binding to one of the ORFs or EMFs of the present invention. As described above, such agents can be randomly screened or

rationally designed/selected. Targeting the ORF or EMF allows a skilled artisan to design sequence specific or element specific agents, modulating the expression of either a single ORF or multiple ORFs which rely on the same EMF for expression control. One class of DNA binding agents are agents which contain base residues which hybridize or form a triple helix formation by binding to DNA or RNA. Such agents can be based on the classic phosphodiester, ribonucleic acid backbone, or can be a variety of sulfhydryl or polymeric derivatives which have base attachment capacity.

Agents suitable for use in these methods preferably contain 20 to 40 bases and are designed to be complementary to a region of the gene involved in transcription (triple helix - see Lee et al., Nucl. Acids Res. 6:3073 (1979); Cooney et al., Science 241:456 (1988); and Dervan et al., Science 251:1360 (1991)) or to the mRNA itself (antisense - Okano, J. Neurochem. 56:560 (1991); Oligodeoxynucleotides as Antisense Inhibitors of Gene Expression, CRC Press, Boca Raton, FL (1988)). Triple helix-formation optimally results in a shut-off of RNA transcription from DNA, while antisense RNA hybridization blocks translation of an mRNA molecule into polypeptide. Both techniques have been demonstrated to be effective in model systems. Information contained in the sequences of the present invention is necessary for the design of an antisense or triple helix oligonucleotide and other DNA binding agents.

Agents which bind to a protein encoded by one of the ORFs of the present invention can be used as a diagnostic agent. Agents which bind to a protein encoded by one of the ORFs of the present invention can be formulated using known techniques to generate a pharmaceutical composition.

3.19 USE OF NUCLEIC ACIDS AS PROBES

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Another aspect of the subject invention is to provide for polypeptide-specific nucleic acid hybridization probes capable of hybridizing with naturally occurring nucleotide sequences. The hybridization probes of the subject invention may be derived from any of the nucleotide sequences SEQ ID NOs: 1 - 948. Because the corresponding gene is only expressed in a limited number of tissues, a hybridization probe derived from of any of the nucleotide sequences SEQ ID NOs: 1 - 948 can be used as an indicator of the presence of RNA of cell type of such a tissue in a sample.

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Any suitable hybridization technique can be employed, such as, for example, in situ hybridization. PCR as described in US Patents Nos. 4,683,195 and 4,965,188 provides additional uses for oligonucleotides based upon the nucleotide sequences. Such probes used

in PCR may be of recombinant origin, may be chemically synthesized, or a mixture of both. The probe will comprise a discrete nucleotide sequence for the detection of identical sequences or a degenerate pool of possible sequences for identification of closely related genomic sequences.

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Other means for producing specific hybridization probes for nucleic acids include the cloning of nucleic acid sequences into vectors for the production of mRNA probes. Such vectors are known in the art and are commercially available and may be used to synthesize RNA probes *in vitro* by means of the addition of the appropriate RNA polymerase as T7 or SP6 RNA polymerase and the appropriate radioactively labeled nucleotides. The nucleotide sequences may be used to construct hybridization probes for mapping their respective genomic sequences. The nucleotide sequence provided herein may be mapped to a chromosome or specific regions of a chromosome using well known genetic and/or chromosomal mapping techniques. These techniques include in situ hybridization, linkage analysis against known chromosomal markers, hybridization screening with libraries or flow-sorted chromosomal preparations specific to known chromosomes, and the like. The technique of fluorescent in situ hybridization of chromosome spreads has been described, among other places, in Verma et al (1988) Human Chromosomes: A Manual of Basic Techniques, Pergamon Press, New York NY.

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Fluorescent in situ hybridization of chromosomal preparations and other physical chromosome mapping techniques may be correlated with additional genetic map data. Examples of genetic map data can be found in the 1994 Genome Issue of Science (265:1981f). Correlation between the location of a nucleic acid on a physical chromosomal map and a specific disease (or predisposition to a specific disease) may help delimit the region of DNA associated with that genetic disease. The nucleotide sequences of the subject invention may be used to detect differences in gene sequences between normal, carrier or affected individuals.

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3.20 PREPARATION OF SUPPORT BOUND OLIGONUCLEOTIDES

Oligonucleotides, i.e., small nucleic acid segments, may be readily prepared by, for example, directly synthesizing the oligonucleotide by chemical means, as is commonly practiced using an automated oligonucleotide synthesizer.

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Support bound oligonucleotides may be prepared by any of the methods known to those of skill in the art using any suitable support such as glass, polystyrene or Teflon. One strategy is to precisely spot oligonucleotides synthesized by standard synthesizers. Immobilization can be

achieved using passive adsorption (Inouye & Hondo, (1990) J. Clin. Microbiol. 28(6) 1469-72); using UV light (Nagata *et al.*, 1985; Dahlen *et al.*, 1987; Morrissey & Collins, (1989) Mol. Cell Probes 3(2) 189-207) or by covalent binding of base modified DNA (Keller *et al.*, 1988; 1989); all references being specifically incorporated herein.

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Another strategy that may be employed is the use of the strong biotin-streptavidin interaction as a linker. For example, Broude *et al.* (1994) Proc. Natl. Acad. Sci. USA 91(8) 3072-6, describe the use of biotinylated probes, although these are duplex probes, that are immobilized on streptavidin-coated magnetic beads. Streptavidin-coated beads may be purchased from Dynal, Oslo. Of course, this same linking chemistry is applicable to coating any surface with streptavidin. Biotinylated probes may be purchased from various sources, such as, e.g., Operon Technologies (Alameda, CA).

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Nunc Laboratories (Naperville, IL) is also selling suitable material that could be used. Nunc Laboratories have developed a method by which DNA can be covalently bound to the microwell surface termed Covalink NH. CovaLink NH is a polystyrene surface grafted with secondary amino groups (>NH) that serve as bridge-heads for further covalent coupling. CovaLink Modules may be purchased from Nunc Laboratories. DNA molecules may be bound to CovaLink exclusively at the 5'-end by a phosphoramidate bond, allowing immobilization of more than 1 pmol of DNA (Rasmussen et al., (1991) Anal. Biochem. 198(1) 138-42).

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The use of CovaLink NH strips for covalent binding of DNA molecules at the 5'-end has been described (Rasmussen et al., (1991). In this technology, a phosphoramidate bond is employed (Chu et al., (1983) Nucleic Acids Res. 11(8) 6513-29). This is beneficial as immobilization using only a single covalent bond is preferred. The phosphoramidate bond joins the DNA to the CovaLink NH secondary amino groups that are positioned at the end of spacer arms covalently grafted onto the polystyrene surface through a 2 nm long spacer arm. To link an oligonucleotide to CovaLink NH via an phosphoramidate bond, the oligonucleotide terminus must have a 5'-end phosphate group. It is, perhaps, even possible for biotin to be covalently bound to CovaLink and then streptavidin used to bind the probes.

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More specifically, the linkage method includes dissolving DNA in water (7.5 ng/ul) and denaturing for 10 min. at 95°C and cooling on ice for 10 min. Ice-cold 0.1 M 1-methylimidazole, pH 7.0 (1-MeIm₇), is then added to a final concentration of 10 mM 1-MeIm₇. A ss DNA solution is then dispensed into CovaLink NH strips (75 ul/well) standing on ice.

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Carbodiimide 0.2 M 1-ethyl-3-(3-dimethylaminopropyl)-carbodiimide (EDC), dissolved in 10 mM 1-MeIm₇, is made fresh and 25 ul added per well. The strips are incubated for 5 hours

at 50°C. After incubation the strips are washed using, e.g., Nunc-Immuno Wash; first the wells are washed 3 times, then they are soaked with washing solution for 5 min., and finally they are washed 3 times (where in the washing solution is 0.4 N NaOH, 0.25% SDS heated to 50°C).

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It is contemplated that a further suitable method for use with the present invention is that described in PCT Patent Application WO 90/03382 (Southern & Maskos), incorporated herein by reference. This method of preparing an oligonucleotide bound to a support involves attaching a nucleoside 3'-reagent through the phosphate group by a covalent phosphodiester link to aliphatic hydroxyl groups carried by the support. The oligonucleotide is then synthesized on the supported nucleoside and protecting groups removed from the synthetic oligonucleotide chain under standard conditions that do not cleave the oligonucleotide from the support. Suitable reagents include nucleoside phosphoramidite and nucleoside hydrogen phosphorate.

An on-chip strategy for the preparation of DNA probe for the preparation of DNA probe arrays may be employed. For example, addressable laser-activated photodeprotection may be employed in the chemical synthesis of oligonucleotides directly on a glass surface, as described by Fodor *et al.* (1991) Science 251(4995) 767-73, incorporated herein by reference. Probes may also be immobilized on nylon supports as described by Van Ness *et al.* (1991) Nucleic Acids Res. 19(12) 3345-50; or linked to Teflon using the method of Duncan & Cavalier (1988) Anal. Biochem. 169(1) 104-8; all references being specifically incorporated herein.

To link an oligonucleotide to a nylon support, as described by Van Ness *et al.* (1991), requires activation of the nylon surface via alkylation and selective activation of the 5'-amine of oligonucleotides with cyanuric chloride.

One particular way to prepare support bound oligonucleotides is to utilize the light-generated synthesis described by Pease *et al.*, (1994) PNAS USA 91(11) 5022-6, incorporated herein by reference). These authors used current photolithographic techniques to generate arrays of immobilized oligonucleotide probes (DNA chips). These methods, in which light is used to direct the synthesis of oligonucleotide probes in high-density, miniaturized arrays, utilize photolabile 5'-protected *N*-acyl-deoxynucleoside phosphoramidites, surface linker chemistry and versatile combinatorial synthesis strategies. A matrix of 256 spatially defined oligonucleotide probes may be generated in this manner.

3.21 PREPARATION OF NUCLEIC ACID FRAGMENTS

The nucleic acids may be obtained from any appropriate source, such as cDNAs, genomic DNA, chromosomal DNA, microdissected chromosome bands, cosmid or YAC inserts, and RNA, including mRNA without any amplification steps. For example, Sambrook *et al.*

(1989) describes three protocols for the isolation of high molecular weight DNA from mammalian cells (p. 9.14-9.23).

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DNA fragments may be prepared as clones in M13, plasmid or lambda vectors and/or prepared directly from genomic DNA or cDNA by PCR or other amplification methods. Samples may be prepared or dispensed in multiwell plates. About 100-1000 ng of DNA samples may be prepared in 2-500 ml of final volume.

The nucleic acids would then be fragmented by any of the methods known to those of skill in the art including, for example, using restriction enzymes as described at 9.24-9.28 of Sambrook *et al.* (1989), shearing by ultrasound and NaOH treatment.

Low pressure shearing is also appropriate, as described by Schriefer *et al.* (1990) Nucleic Acids Res. 18(24) 7455-6, incorporated herein by reference). In this method, DNA samples are passed through a small French pressure cell at a variety of low to intermediate pressures. A lever device allows controlled application of low to intermediate pressures to the cell. The results of these studies indicate that low-pressure shearing is a useful alternative to sonic and enzymatic DNA fragmentation methods.

One particularly suitable way for fragmenting DNA is contemplated to be that using the two base recognition endonuclease, *CviJI*, described by Fitzgerald *et al.* (1992) Nucleic Acids Res. 20(14) 3753-62. These authors described an approach for the rapid fragmentation and fractionation of DNA into particular sizes that they contemplated to be suitable for shotgun cloning and sequencing.

The restriction endonuclease CviII normally cleaves the recognition sequence PuGCPy between the G and C to leave blunt ends. Atypical reaction conditions, which alter the specificity of this enzyme ($CviII^{**}$), yield a quasi-random distribution of DNA fragments form the small molecule pUC19 (2688 base pairs). Fitzgerald *et al.* (1992) quantitatively evaluated the randomness of this fragmentation strategy, using a $CviII^{**}$ digest of pUC19 that was size fractionated by a rapid gel filtration method and directly ligated, without end repair, to a lac Z minus M13 cloning vector. Sequence analysis of 76 clones showed that $CviII^{**}$ restricts pyGCPy and PuGCPu, in addition to PuGCPy sites, and that new sequence data is accumulated at a rate consistent with random fragmentation.

As reported in the literature, advantages of this approach compared to sonication and agarose gel fractionation include: smaller amounts of DNA are required (0.2-0.5 ug instead of 2-5 ug); and fewer steps are involved (no preligation, end repair, chemical extraction, or agarose gel electrophoresis and elution are needed

Irrespective of the manner in which the nucleic acid fragments are obtained or prepared, it is important to denature the DNA to give single stranded pieces available for hybridization. This is achieved by incubating the DNA solution for 2-5 minutes at 80-90°C. The solution is then cooled quickly to 2°C to prevent renaturation of the DNA fragments before they are contacted with the chip. Phosphate groups must also be removed from genomic DNA by methods known in the art.

3.22 PREPARATION OF DNA ARRAYS

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Arrays may be prepared by spotting DNA samples on a support such as a nylon membrane. Spotting may be performed by using arrays of metal pins (the positions of which correspond to an array of wells in a microtiter plate) to repeated by transfer of about 20 nl of a DNA solution to a nylon membrane. By offset printing, a density of dots higher than the density of the wells is achieved. One to 25 dots may be accommodated in 1 mm², depending on the type of label used. By avoiding spotting in some preselected number of rows and columns, separate subsets (subarrays) may be formed. Samples in one subarray may be the same genomic segment of DNA (or the same gene) from different individuals, or may be different, overlapped genomic clones. Each of the subarrays may represent replica spotting of the same samples. In one example, a selected gene segment may be amplified from 64 patients. For each patient, the amplified gene segment may be in one 96-well plate (all 96 wells containing the same sample). A plate for each of the 64 patients is prepared. By using a 96-pin device, all samples may be spotted on one 8 x 12 cm membrane. Subarrays may contain 64 samples, one from each patient. Where the 96 subarrays are identical, the dot span may be 1 mm² and there may be a 1 mm space between subarrays.

Another approach is to use membranes or plates (available from NUNC, Naperville, Illinois) which may be partitioned by physical spacers e.g. a plastic grid molded over the membrane, the grid being similar to the sort of membrane applied to the bottom of multiwell plates, or hydrophobic strips. A fixed physical spacer is not preferred for imaging by exposure to flat phosphor-storage screens or x-ray films.

The present invention is illustrated in the following examples. Upon consideration of the present disclosure, one of skill in the art will appreciate that many other embodiments and variations may be made in the scope of the present invention. Accordingly, it is intended that the broader aspects of the present invention not be limited to the disclosure of the following examples. The present invention is not to be limited in scope by the exemplified embodiments which are intended as illustrations of single aspects of the invention, and compositions and

methods which are functionally equivalent are within the scope of the invention. Indeed, numerous modifications and variations in the practice of the invention are expected to occur to those skilled in the art upon consideration of the present preferred embodiments. Consequently, the only limitations which should be placed upon the scope of the invention are those which appear in the appended claims.

All references cited within the body of the instant specification are hereby incorporated by reference in their entirety.

4.0 EXAMPLES

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4.1 EXAMPLE 1

Novel Nucleic Acid Sequences Obtained From Various Libraries

A plurality of novel nucleic acids were obtained from cDNA libraries prepared from various human tissues and in some cases isolated from a genomic library derived from human chromosome using standard PCR, SBH sequence signature analysis and Sanger sequencing techniques. The inserts of the library were amplified with PCR using primers specific for the vector sequences which flank the inserts. Clones from cDNA libraries were spotted on nylon membrane filters and screened with oligonucleotide probes (e.g., 7-mers) to obtain signature sequences. The clones were clustered into groups of similar or identical sequences. Representative clones were selected for sequencing.

In some cases, the 5' sequence of the amplified inserts was then deduced using a typical Sanger sequencing protocol. PCR products were purified and subjected to fluorescent dye terminator cycle sequencing. Single pass gel sequencing was done using a 377 Applied Biosystems (ABI) sequencer to obtain the novel nucleic acid sequences. In some cases RACE (Random Amplification of cDNA Ends) was performed to further extend the sequence in the 5' direction.

25 4.2 EXAMPLE 2

Novel Nucleic Acids

The novel nucleic acids of the present invention of the invention were assembled from sequences that were obtained from a cDNA library by methods described in Example 1 above, and in some cases sequences obtained from one or more public databases. The nucleic acids were assembled using an EST sequence as a seed. Then a recursive algorithm was used to extend the seed EST into an extended assemblage, by pulling additional sequences from different databases (i.e., Hyseq's database containing EST sequences, dbEST version 119, gb pri

119, and UniGene version 119) that belong to this assemblage. The algorithm terminated when there was no additional sequences from the above databases that would extend the assemblage. Inclusion of component sequences into the assemblage was based on a BLASTN hit to the extending assemblage with BLAST score greater than 300 and percent identity greater than 95%.

Using PHRAP (Univ. of Washington) or CAP4 (Paracel), a full length gene cDNA sequence and its corresponding protein sequence were generated from the assemblage. Any frame shifts and incorrect stop codons were corrected by hand editing. During editing, the sequence was checked using FASTY and/or BLAST against Genbank (i.e., dbEST version 121, gb pri 121, UniGene version 121, Genpept release 121). Other computer programs which may have been used in the editing process were phredPhrap and Consed (University of Washington) and ed-ready, ed-ext and cg-zip-2 (Hyseq, Inc.). The full-length nucleotide and amino acid sequences, including splice variants resulting from these procedures are shown in the Sequence Listing as SEQ ID NOS: 1-948.

Table 1 shows the various tissue sources of SEO ID NO: 1-1896.

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The nearest neighbor results for polypeptides encoded by SEQ ID NO: 1-948 (i.e. SEQ ID NO: 949-1896) were obtained by a BLASTP (version 2.0a1 19MP-WashU) search against Genpept, Geneseq and SwissProt databases using BLAST algorithm. The nearest neighbor result showed the closest homologue with functional annotation for SEQ ID NO: 1-948. The translated amino acid sequences for which the nucleic acid sequence encodes are shown in the Sequence Listing. The homologues with identifiable functions for SEQ ID NO: 1-948 are shown in Table 2 below.

Using eMatrix software package (Stanford University, Stanford, CA) (Wu et al., J. Comp. Biol., Vol. 6 pp. 219-235 (1999) herein incorporated by reference), polypeptides encoded by SEQ ID NO: 1-948 (i.e. SEQ ID NO: 949-1896) were examined to determine whether they had identifiable signature regions. Table 3 shows the signature region found in the indicated polypeptide sequences, the description of the signature, the eMatrix p-value(s) and the position(s) of the signature within the polypeptide sequence.

Using the Pfam software program (Sonnhammer et al., Nucleic Acids Res., Vol. 26(1) pp. 320-322 (1998) herein incorporated by reference) polypeptides encoded by SEQ ID NO: 1-948 (i.e. SEQ ID NO: 949-1896) were examined for domains with homology to certain peptide domains. Table 4 shows the name of the domain found, the description, the product of all the e-value of similar domains found, the pFam score for the identified domain within

the sequence, number of similar domains found, and the position of the domain in the SEQ ID NO: being interrogated.

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The GeneAtlas™ software package (Molecular Simulations Inc. (MSI), San Diego. CA) was used to predict the three-dimensional structure models for the polypeptides encoded by SEO ID NO: 1-948 (i.e. SEO ID NO: 949-1896). Models were generated by (1) PSI-BLAST which is a multiple alignment sequence profile-based searching developed by Altschul et al., (Nucl. Acids res. 25, 3389-3408 (1997)), (2) High Throughput Modeling (HTM) (Molecular Simulations Inc. (MSI) San Diego, CA) which is an automated sequence and structure searching procedure (http://www.msi.com/), and (3) SeqFoldTM which is a fold recognition method described by Fischer and Eisenberg (J. Mol. Biol. 209, 779-791 (1998)). This analysis was carried out, in part, by comparing the polypeptides of the invention with the known NMR (nuclear magnetic resonance) and x-ray crystal three-dimensional structures as templates. Table 5 shows, "PDB ID", the Protein DataBase (PDB) identifier given to template structure: "Chain ID", identifier of the subcomponent of the PDB template structure: "Compound Information", information of the PDB template structure and/or its subcomponents: "PDB Function Annotation" gives function of the PDB template as annotated by the PDB files (http://www.rcsb.org/PDB/); start and end amino acid position of the protein sequence aligned; PSI-BLAST score, the verify score, the SeqFold score, and the Potential(s) of Mean Force (PMF). The verify score produced by GeneAtlas™ software (MSI), is based on Dr. Eisenberg's Profile-3D threading program developed in Dr. DavidEisenberg's laboratory (US patent no. 5,436,850 and Luthy, Bowie, and Eisenberg, Nature, 356:83-85 (1992)) and a publication by R. Sanchez and A. Sali, Proc. Natl. Acad. Sci. USA, 95:12502-13597. The verify score produced by GeneAtlas™ normalizes the verify score for proteins with different lengths so that a unified cutoff can be used to select good models as follows:

Verify score (normalized) = (raw score $-\frac{1}{2}$ high score)/(1/2 high score)

The PMF score, produced by GeneAtlasTM software (MSI), is a composite scoring function that depends in part on the compactness of the model, sequence identity in the alignment used to build the model, pairwise and surface mean force potential (MFP). As given in Table 5, a verify score between 0 to 1.0, with 1 being the best, represents a good model. Similarly, a PMF score between 0 to 1.0, with 1 being the best, represents a good model. A SeqFoldTM score of more than 50 is considered significant. A good model may

also be determined by one of skill in the art based on all the information in Table 5 taken in totality.

The nucleotide sequence within the sequences that codes for signal peptide sequences and their cleavage sites can be determined from using Neural Network SignalP V1.1 program(from Center for Biological Sequence Analysis, The Technical University of Denmark). The process for identifying prokaryotic and eukaryotic signal peptides and their cleavage sites are also disclosed by Henrik Nielson, Jacob Engelbrecht, Soren Brunak, and Gunnar von Heijne in the publication "Identification of prokaryotic and eukaryotic signal peptides and prediction of their cleavage sites" Protein Engineering, Vol. 10, no. 1, pp. 1-6 (1997), incorporated herein by reference. A maximum S score and a mean S score, as described in the Nielson et al., as reference, were obtained for the polypeptide sequences. Table 6 shows the position of the last amino acid of the signal peptide in each of the polypeptides and the maximum score and mean score associated with that signal peptide.

Table 7 correlates each of SEQ ID NO: 1-948 to a specific chromosomal location.

Table 8 is a correlation table of the novel polynucleotide sequences SEQ ID NO: 1-948, novel polypeptide sequences SEQ ID NO: 949-1896, and their corresponding priority nucleotide sequences in the priority application USSN 09/799,451, herein incorporated by reference in its entirety.

20 **TABLE 1**

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Tissue Origin	Library/RNA Source	HYSEQ Library Name	SEQ ID NOS:
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Null	enriched libray	CTL021	65 84 169 189-192 311 316-325 406 676 727 782 850
Null	mix tissues library	CTL028	65
Null	PCR products cloning	PCR2V1	34 51 134 189 191-192 224 232 260 3,11 388 606 623 806
Null	mix tissues library	SUP002	51 96 103 163 216 272 294 311 316-325 328 378 383 388 446-448 450 453 474 481 500 516 610 774 780 885 904 922
adipocytes	Stratagene	ADP001	2 43 51 73 76 88 97 142 166 181 186 188 208 257 262-263 267-270 282 311 316-325 383 386 427-429 459 463 465 493 507 514 522 545 552 572 643 651 667 700 721 740 754 758 778 795 872 881 883 888 947
adrenal gland	Clontech	ADR002	3-6 10-11 13 16 20-21 24 27-28 33 38 48-49 51 53-54 58 66-67 75 88 97 99 124-125 130 140 157-158 179 188 197-198 200 212-214 216 218 224 229 231 237 257 267 279 281-282 288 302 311 326 362 376-377 381 383 396 398-403 429 443 453-454 456 459-460 474 489 515 526 531-

Tissue Origin	Library/RNA	HYSEQ Library	SEQ ID NOS:
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			532 540 545 550 559 564 568 577 581 586 589 599 605 610 613 631-632 643 648 651 667 670
			672 681 684 699 703 706 708 717-718 734 736
			751 779 785-786 795 813 817 837 871 876 887-
			888 897 904 907 916 921 924-926 948
adult brain	BioChain	ABR012	140 208 311 748 810
adult brain	BioChain	ABR013	51 245 311 316-325 436 717 810 936
adult brain	Clontech	ABR001	12 51 87 142 169 178 180 245 263 286 288 290
	0.0	1.2	295 304 308 311-313 375 379-380 403 425 428
		Ĭ	431 458 486 499 503 512 557-558 567-568 606
			610 641 651 695 704 730 741 754 766 810 822
	ľ	į.	827 841 850 864 871 884 897 917 920 925-927
		1	934 946
adult brain	Clontech	ABR006	2 14-15 22-23 29 32-33 49 66-68 83 99 111-112
			115 129 131 142 147 153 157 163 169 189-192
		1	200 205 207 212-214 218 221 229 234 256-257
			263 272 276 279 282 292-299 301 311 315 340-
		1	343 349 376-377 383-386 388 403 405 407 410
			425 438 453-454 460 463 469 474 489 495 499-
	ł		500 511 522 531-532 539 541 545-546 551 556
			563 565 571 579-583 591 594 606 626 628 631-
	J	1	632 643 647 651 678 684 691-692 700 717 721
	,		726 730 732 741 744 754 757 769 772 774 782
		1	788 793 810 820 827-828 853 867 869 875 879
1111	I	177.000	897 913 921-922 925-926 933-934 939-941 947
adult brain	Clontech	ABR008	1-2 9-10 13 16-18 23 27-28 30-32 37 39 42-43
			46 49-51 66 70 76 80 83 86-87 95-97 109 111-
	ļ		112 116-117 124 130-131 133-134 136-137 141-
	1	İ	142 146-147 152-157 160 162 169 171 179 184 189-192 195 200-201 206 211-212 216-218 239
	ļ	1	247-248 250 252 254-258 261-263 271-272 276
		ļ	278 282 288 293-295 297 300 302 307 309 311
			314-326 328 333 337-341 343 347 349 351-354
			358 360-361 367 374 376-378 381 384 388-390
			393 395-396 400-403 405 407 409 411 414 418-
			420 422 427-429 433 438 440-441 445-447 450
			453-455 458 460-461 463 466-470 474 476 486
		[491-493 496 498-500 507 511 514 520-521 525
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	Í	1	552 557-558 560 562 564-566 568 571-572 578-
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			706 709-710 712-714 716-718 721-722 724-725
			727-728 730 733 740-741 745 751-752 754 761
	1		765 774 777-779 787 790 792-793 799 801-804
		1	808 810 812 820 822 824 827 831-832 834 836
			845 850 858-861 868-869 871-872 875-876 883
			887 891 897 900 904 907 910 913 917-920 925-
adult bus!-	Clastoph	ADDOLL	927 929 931-934 938-941 946-947
adult brain	Clontech GIBCO	ABR011	51 133 810 892
adult brain	J GIBCO	AB3001	16-17 19 40 66 92-94 97 124 131 134 163 186
		1	188 208 213 231 268-270 284 288 295 297 299
	1	l.	311 315-325 340 373 387 396 407 429 469 489 495 498-499 533 542 545 562 568 587 589 618-
		ľ	619 643 664 687-688 694-695 730 748 836 876
	!	1	882 884 902 925-926 948
adult brain	GIBCO	ABD003	2 22-24 29 33 43 45 50-51 66 71 75 77 82 87-88
www.s. Orwell	1 01000	1,000	2 24-24 27 33 43 30-31 00 11 13 11 02 8/-88

Tissue Origin	Library/RNA	HYSEQ Library	SEQ 1D NOS:
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		Ĭ	395-396 407 423 431 443-444 450-451 457 459
			468 476 489 495 499-500 514 520-522 532-533
			541-542 545-546 557-558 562 564 576-577 581- 583 588-589 591 595 597 599 601 610 619 631-
)		632 639 643-644 654-655 658-660 664 667 676
			682 687-688 693 696 700 704 711 713-714 746
1			758 765-766 774-775 780 800 802 804 807 810
	1		827 829 834 842 850 854-855 866 870-871 878
			892-893 897 899 910 916 920-921 929 931-932
			934
adult brain	Invitrogen	ABR014	2 51 65 84 86 134 311 316-325 384 422 445 460
addir Orain	1	71DIO14	503 525 564 634 651 721 794 804 810 922
adult brain	Invitrogen	ABR015	37 134 263 272 277 294 311 443 467 500 514
douit Olum	Invinogen	ADROIS	582-583 619 651 694 850 871-872 883 888 936
adult brain	Invitrogen	ABR016	19 22 57 134 188 233 271 277 299 373 440 444
addit orain	Invitrogen	ABROID	459 469 514 640 717 882 890 920
adult brain	Invitrogen	ABT004	1-2 18 28 51 55-57 67 87-88 115 119 137-139
addit Oldin	1	1 IBTOOT	142 163 200 204 213 218 257 263 271 282 288
	1		299 301 311 341 358 370 378 402 407 422-423
	i		427 458 460 463 499 504 534-535 551 557-558
			571 586 605-606 610 618 627-628 640 643 680
		1	687 691-692 697 701-702 715 719-721 725 727
	ļ	-	753-754 758 771 782 810 827 859 871-872 881
			913 920 925-926 938-941 944 946
adult heart	GIBCO	AHR001	1-2 5-6 14-18 20-21 23 28 32 37 41 45 51 53 55-
			56 62 66 69-70 80-81 85 87 91 97 107 120-121
·	Ĭ		124 134 140-141 156 163 165-166 172 188-192
	1	1	195 197-198 200 208 213 216 221 229 231 235
			261-265 267 271 276 284 288 302 305 308 311
			316-325 328 333-334 337-338 347 368-369 373
			376-377 379-380 389 396 420 440 445 453-454
	1		459-460 465 468 478 483-484 489 491-493 495
		1	501 504 507 514 524 529 533 539 541-543 545
	1		549 552-553 564 566 568 574 577 581-583 587
		1	589-591 596 599 602 605 608-609 618-619 623
		1	625 629-632 643 645 647 651 664 672 676 678
		Ì	683-684 707 714 716-717 732 735 740 743-744
		[751 754 757 765 775 778 784-786 788 807-808
	!		810 826 828-829 842 850 860 876 878-880 890
			894 897 899 902 916 923-927 933 939-941
adult kidney	GIBCO	AKD001	1-2 5-6 13 16-17 19-23 26 28 33 38-39 43 45 48-
_	İ		51 55-57 60 66-67 69-73 79 82-83 87 90 94 96-
	1		97 100 103 126 131 134 140 148-149 157 163
	1	1	166 179 184 186 188-192 200-203 213-216 220-
	{	1	221 224 226-229 232 235 245 252 257 261-263
		}	268-270 272-274 276-277 279 282 288 290 294
			299 308 311 316-325 332 335 339-340 358 360-
		Ī	363 373 375 379-380 386 388-389 392 395-396
	[402 413 421 423-424 428-429 431 436 440 444
	(450 454 457 459-460 468-469 476 489 492-493
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	j		582-583 590-591 595-596 598 602 607 610 613
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	i .	1	655 658-659 664 667-669 673 678 680-682 684

Tissue Origin	Library/RNA Source	HYSEQ Library Name	SEQ ID NOS:
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adult kidney	Invitrogen	AKT002	1 14-15 28 30 35-37 53-54 73 88 112 114 129 134 137 140 149 157 166 172 186-188 191-192 203-204 213 235 245 257 262-263 266 268-270 273-274 288-289 297 299 302 310-313 315-325 335 340 358 373 378-381 395 413 423 441 450 453 456 459-460 470 477 491-494 500 513 540 542 545 554 556 564 567 587 591 619 622 627 633 643 668-669 677 684 689 693 701-702 704 714 729-730 754 758 760 777 781 785-786 788-789 807 836-837 840 849-850 872 876 881 890 895 905-906 913 923 925-926 931-933 944
adult liver	Clontech	ALV003	159 179 189-192 201 219 257 349 392 568 664 753 796 887 934
adult liver	Invitrogen	ALV002	5-6 28 35-36 52 54 70 72 86-87 103 112 127 134 140 159 179 188 200-201 213 218-219 225 239-240 257 263 271 275 311 315 367 373 388 392 444 459-460 464 468 497-499 512 527 532 542 545 562 599 605 629 640 657 680 684 687-688 706 713 715 717-718 721 742 754 758 771 791-793 818 829 843 854-855 871 878-879 887 921 933-934
adult lung	GIBCO	ALG001	5-6 16 28 38 51 74 97 122 124 134 140 163 188- 192 200 218 221 262-263 268-272 294 311 316- 325 379-380 429 463 468 493 511 520-522 537- 538 542 545 568-569 595 622 643-644 664 667 711 714 721 730 754 775 850 860 863 879 887 897 925-926 944
adult lung	Invitrogen	LGT002	2 5-8 13 16-17 29-31 35-39 43 46 57 67 72 76 78 81 85 87 90 94 97 100 110 119 122 130-131 134 137 140 146 149 167 172 174 179 188 197- 198 201 213 216 218 220-221 223 231 245-246 251-252 256-257 262-263 267-270 277 284 288 296 299 301-302 311 316-325 340 354 373 379- 380 388 392 395 400-401 410 413 421 431 436 441-443 445 451 455 457 460 463-464 467 469 475 478 489 491 493 497 499 504 507 514 518- 519 524 529 534-535 537 542 545-546 548 552 555 559 568 578 581-583 592 597 602-603 605- 607 613 615 619 621-622 636-637 642-643 646- 647 654-655 679-681 684 687-689 693 701-702 704 706 711 713 715-716 718 727 732-734 738 748 753-754 757-758 760 762 766 769 774 782 785-786 802 817 829 834 850 853 859-860 866- 867 870-871 878-879 887 890 899 902 904 910 917 923 925-926 936-937
adult spleen	Clontech	SPLc01	33 38 57 67 75 87 134 142 163 216 221 229 244 257 304 307 311 316-325 340 355-356 378 441 468 525 538 545 560 564 599 721 754 766 780 794 827 841 850 866
adult spleen	GIBCO	ASP001	2 14-15 20-22 29 38 43 48 51 53-56 65 67 72 74 84 87 131-132 134 137 140 172 188-192 200 212 221 256 263 271 282 308 311 316-325 343

Tissue Origin	Library/RNA	HYSEQ Library	SEQ ID NOS:
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		j	735 742-744 758 771 799 810 817 836 850 878
	-		925-926 934 936
bladder	Invitrogen	BLD001	5-6 8 20-21 28 72 91 122 126 130 166 188 197
	1		200 213-214 225 257 262 315-325 341 409 486
			491 572 593 622 650 673 691-692 810 813 861
			870 877 883 887 904
bone marrow	Clonetech	BMD007	65 76 84 245 516
bone marrow	Clontech	BMD001	8 13-16 28 38 43 45-48 50-51 57 62-63 65 67
	}		84-85 97 100 104 118 122-124 131 134 140 163
			188 214 216 221 224 231 245 252 261-263 268-
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			460 465 469-470 475 495 497-498 502 507 514-
			519 529 537-538 542 546 550 552 556 560-561
			563-564 568 576-577 580 587 589 596 601-602
	Ì		610-613 619-620 626 642-643 647 651 664 666
	1		668 676 678 681-682 684 696 704 706-707 715
	•		727 730 732-735 740 748 753 758 761 764 771
			775 780 794 800-801 830 834 836 842 850 863
			871-872 878-879 882 884 888 897 900-901 904
	ļ		910 921 923 929 934 947
bone marrow	Clontech	BMD004	65
bone marrow	GF	BMD002	1-2 5-6 10 13 16-21 27 31 38 42-43 46 57 65-66
			76 80 84 87 97 99 110 112 118 131 134 137 140
			145 161 163 165 172 195 206 208 221 229 231
			237 244 247 252 256 267-270 272 276 278-279
			282 284 288 294 301 304 307 311 316-327 333-
			334 337-338 345-347 352 360-361 368 373 376-
			378 381 383 388 414 436 441 443 450 452 454-
			455 457 469-470 483-484 486 490 498 516 519-
			521 524 530-531 539 542-543 545-546 551 553
			555 559 564 571 576-577 580 585 591 594 602
			604-605 607-608 610-612 619-621 625-626 629 631-632 639-640 644 650-651 664-665 684 687-
			688 693 699 703 714 723-724 727 733 735 740
			742 745 748 750-752 754-755 777-780 784 787
			794-795 802 809 817 824 827 831-832 834 846-
			847 850-851 854-855 861 867 875 878 883 886
			891 894 897 900 902 910 914 919 921 925-926
			929 936 939-941 944
cervix	BioChain	CVX001	3-4 14-16 20-23 25 33 42-43 45 48-50 54 57 67
	2.00	3.71001	69 75 85 87 91 95-97 107 110 114 124 126-127
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	}	1	394 396 409 413-414 421 428-429 438-440 443-
			444 454 456-457 459 463 467 475 486 489 493
		1	495 507 514-515 522 534-537 556 568 572 574
			577 582-583 587 594 600 608 610 613 622 626
	ł		633 639 643 647-648 651 653 667 680 683 685-
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Tissue Origin	Library/RNA Source	HYSEQ Library Name	SEQ 1D NOS:
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colon	Invitrogen	CLN001	19-21 53 55-57 72 88 133-134 168 213 245 252 311-313 316-325 340 443 459 469 483-484 486 497 515-516 597 606 622 643 667 676 706 718
dionhraam	PioChoin	DIA 002	742-743 753 766 829 833 872 887 902 923 929
diaphragm endothelial cells	BioChain Strategene	DIA002 EDT001	305 311 1-2 7-8 14-16 19-22 24 28-29 32-33 41 43 45 51 57 61 74 83 87-88 97 105 112 116-117 131 134 137 140 148 165 172 179 188-192 197-198 208 212-213 220-221 225 229 231 237 246 252 256-258 261-265 268-272 276-277 279 281-282 284 286 288 294 297 299 302 307-308 311-313 326 334-335 340 355-356 358 360-361 364 375 383 386 389 392 403 413 423-424 429 440 443 445 451 453 455-456 459-460 462-463 465-466 468-470 475 491 495 497-499 504 514 520-522 524-526 528 532-536 539-540 546 551-552 554 556 564 566-567 571 574-577 581-583 587 591-593 597-599 601 607 615 618 622 625 633 639 641-644 651 667 677 680 684 691-692 701-702 704 716-717 720-721 726 732-733 735 743-744 754 758 765 785-786 795 802 806 809 819 826 828-
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esophagus	BioChain	ESO002	188
fetal brain	Clontech	FBR001	33 49 51 126 134 197-198 264-265 360-361 413 460 647 810 819 871
fetal brain	Clontech	FBR004	137 156 205 282 284 405 424 480 489 701-702 820 921
fetal brain	Clontech	FBR006	2 9-10 18-19 22 28 30-32 37 39-40 42-43 46-47 49 57 66-67 76 80 83 96 109 112 116-117 120 124 131 133-134 136 142-143 146 152 155 160 162 165 169 173 184 189-198 200-201 205 215- 216 238 244 248 254-255 257-258 260-263 272- 274 276-277 282 288 293-294 307 309 311 314- 328 343 347 351-352 354 357-358 360-361 373- 375 378-381 390 392 400-401 403 405 407 410- 411 413 420 424 429 445 450 452-453 458 460 463 467-469 472 474 477 479 483-484 491 499 507 520-521 525 527 529 531 533 538 545 551 562 564 566 571 574 579 581-583 587 591 599- 600 604 606 611 626 629 631-632 638 643 651 654-655 657-660 672-673 676-677 684 689 693- 694 697 699 709 714-715 717 720-721 732-733 735 744 748 751-752 754 761 763 767 772 775 777-779 781 785-786 790 792 802 804 808 810 820 824 826 838-840 850 858-860 864 866 872- 873 881 891-892 901-902 904 910-911 913 917- 918 920 925-926 933 939-941 946-947
fetal brain	Clontech	FBRS03	316-325 684
fetal brain	GIBCO	HFB001	2 12 16-17 19 23 27-28 32-33 39 41-45 49 87-89 94 97 100 107 112 130-131 134 142 157 163 172 188-192 200 216 224-225 231 237 242 246 252 258 261 263-265 271 273-274 276-277 288 295 299 301 307 311 314-326 328 341 355-356 373 375 387 389 392 395 424-425 431 438 445 450-452 457 459-460 468-469 475 489 491 495

Tissue Origin	Library/RNA	HYSEQ Library	SEQ ID NOS:
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			668 673 676 680 693-694 696 703-704 716-717
	1		721 727 735 738 740 744 748 757-758 769 774
	}		778 780-781 810 827-828 830 850 869 871-872
			876 878-879 884 890 892 897 899 904 906-907
<u> </u>	<u> </u>		913 916 918 920 924 928 934 938 946
fetal brain	Invitrogen	FBT002	2-4 20-21 45 51 53 57 88 93 125-126 134 166
	}		184 186 188 200 213 224 263 276-278 307 311
	}		341 373 375 418-419 423 427 432 450 452 459-
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			550-552 571 577 610 714 721 743 754 795 827 861 866 872-873 887 896 925-926 934 939-941
	1	1	946 948
fetal heart	Invitrogen	FHR001	2-4 10 13 16-18 29 31-32 37-38 43 46 49 51 53
ictai neart	invitiogen	TIROUT	55-56 67-68 75 80 85 87 97 115 120 137 152
	ļ		156 160-161 163 168-169 174 178 189-192 196
			200 216 220 225 252 262 276-277 282 288 301-
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0.1111	 	Dren oo t	893-894 897 901 910 913 925-927 936 946
fetal kidney	Clontech	FKD001	8 14-15 32 43 50 68 96 106 126 131 134 140
			186 188 226-228 233 279 282 311 339 428 440 450 456 468 552 618 651 700 726 735 748 751
	1		781 794 797-798 826 878 887 899
fetal kidney	Clontech	FKD002	50 83 96 131 134 143 163 172 193-194 201 203
roun kidiley	Cionicon	I REDUCE	215 263 273-274 311 316-325 339 360-363 374
			376-377 379-380 388 394 400-401 403 407 425
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	1		582-583 587 605-606 621 631-632 647 673 689
	}		706 709 714 726 735 761 774 777 799 809 845-
	l _e	j	848 858 872 875 878-879 882 895 918 927
fetal kidney	Invitrogen	FKD007	66 214
fetal liver	Clontech	FLV002	52 189-192 219 297 308 335 364 378 427 828
fetal liver	Clontech	FLV004	2 19 28-29 37 39 49 52-53 55-56 62 65-66 76 87
			124 134 137 139 142 179 188 195 208 216 219
		1	244 252 263 268-270 272 277 287-288 294 303
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	1		514 520-521 542 553 582-583 587 591 594 611-
		1	613 620-621 638-639 654-655 658-659 681 684
	Į.		687-688 709 721 730 738 744 752 754 781 793
	1		802 813 818 826 832 836 854-855 876 878 893
fotal live-	Invitages	TY YOU	897 900 910 924 933 944
fetal liver	Invitrogen	FLV001	2 7 19 28 35-37 47 52 54-56 66 95 134 139 179
	1	}	188-192 200 213 218 263 272 288 294 305 311 315 349 378-381 388 392 403 426 443 454 459-
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Tissue Origin	Library/RNA Source	HYSEQ Library Name	SEQ ID NOS:
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spleen			91 94 97 100 112 118 122 126 129-130 134 137
			140 148 163 168 172 179 186 188-189 191-192
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i			400-402 413 426 428 436 440-441 443-447 450
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	ĺ		876 878 881-883 888 894 897-898 902 905 907
	<u> </u>		910 919 924-926 929 933 942 947
fetal liver-	Soares	FLS002	1 3-4 11-12 14-17 20-23 26-29 32-34 38 41 43
spleen			45-47 49 51-52 55-62 65-67 76 83-85 87-88 90-
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			378 381 392 394 400-402 414 416 426 428-429
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	1		574 576-577 581 589-590 592 599 601-602 605
•			607 610 612-613 619-620 625 627 629 631-632
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	Ì		857 870-871 876 882-884 886 888 890 894 897-
			898 900 902-903 907 919 921 923-926 929-930
fetal liver-	Soares	FLS003	933 938-942 30 34 67 85 88 99 130 172 188-189 191-192 213
spleen	308163	PLSOOS	229 231 257 311 315-325 329 331 335 362 391
spicen	Ĭ		394 400-402 423 441 455 457 461 476 498 500
	1		511 523 531-532 537 542 576 587 592 612-613
	!		625 649 665-666 703 719 731 733 740 744 771
	1		775 777-778 787 797-798 819 824 826 850 854-
	1		{
fetal lung	Clontech	FI COOL	856 861 863 870 879 884 897 923 931-933 947 65 179 213 223 340 360-361 491 564 577 591
retat tank	Cioniccii	FLG001	
fetal lung	Clontech	ET COOA	627 646 650 712 715 744 758 939-941
fetal lung	Invitrogen	FLG004	388 921
rerar inita	HAIROGEN	FLG003	49 54 75 97 137 148 152 188 197-199 213-214
	Į.		225 240 256 288 316-325 369 378 392 423 429
	L	<u> </u>	464 496 526 580-581 586 591 693 706 726-727

Tissue Origin	Library/RNA	HYSEQ Library	SEQ ID NOS:
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fetal muscle	Invitrogen	FMS001	766 878 913 925-926 939-941 28 65 115 121 126 134 137 156 168 172-173
letai muscre	Illyin ogen	FIMISOUT	181 213-214 225 263 267 305 340-341 360-361
			440 459 516 534-535 543 564 586 606 609-610
1	}		623 650 676 683 754 766 853 871 886 894 930
			934-935 948
fetal muscle	Invitrogen	FMS002	19-21 41 49 51 53 57 75 96 101 103 112 134
			136 156 171 184 188 191-192 212 216 250 262
ł			267 276 305 311 342 348-350 355-356 360-361
			374 392 403 411 415 423 425 457 469 491 495
			499 508 515 517 534-536 543 546 564 566 576
			580 582-583 587 594 599 609 611 615 618 623
	ľ		644 647 658-659 664 668-669 677 683 691-692
			696 703 735 743 754 766 788 802 817 826 828
F-4-1 alde	· ·	POYCOOL	850 877-879 894 910 925-926 935
fetal skin	Invitrogen	FSK001	3-7 18 24 27 29 35-37 51 53 55-56 66-67 76 90
-			95 97 122 126 134 136-137 166-167 181 188- 192 208 213-214 224-225 245 250 252 257 260
			262 268-271 273-274 282 284 297 302 312-313
ļ			315-326 341 367 373 375 378 383 387-388 390
Ì	ł		394 423 429 440-441 450 454-455 457 459 463-
Į.			464 470 472 475 486 489 492 495 498-500 511
ì			514 524 527 530-532 534-535 541-542 545 550
1			552 555-556 565 571 586 589 591-592 602 604
			606 610 613 618 622-623 626 631-632 640 651
}		ļ	654-655 672-673 685-686 693 701-702 704 706
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			768-771 795 809 814 821 824 827 843 853 868
			870-874 887-888 890 897 902 907 925-926 928
L	4	-	930 933-934 939-941 944-945 947
fetal skin	Invitrogen	FSK002	2 5-6 19 29 34 51 57 59 88 97 101 124 131 134
			143 163 166 172 189 191-192 196 212 216 222-
			223 231 250 257 263 268-272 282 284 287-288 294 297 299 302 304 310-311 316-325 328 333
1			340 352 360-361 365-367 372 379-380 388 390
Ì			400-401 403 410-411 440 449-450 454 457 463
İ		ì	470 478 491 495 500 505 515 520-521 524 532
			534-535 541 555 560 562 564 572 576 581 592
			595 599 611 622 626 630 636 640 642 650 664
			677 683 691-693 696 699 701-702 708-709 715
1		j	721 723 728 735 744 747-748 750 754 766 779
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<u></u>			907 910 912 916 918 925-926 933 944-945
fetal spleen	BioChain	FSP001	311 748
infant brain	Soares	IB2002	2-4 12 14-15 20-21 23-24 27 29 31-32 39 41 46
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infant brain	Soares	IB2003	2 27 37 39 43 48-49 51 53 85-87 97 106 113 124 126-127 131 142 166 170 188 200-201 208 214-215 220 224 226-228 231 251 257 263 267 271-272 279 288 293 299 311 314-326 337-339 349 360-361 367 386 392 397 400-402 407 410 418-419 424-425 427 429 452 454 460 475 489 495 497-500 507 522-523 525 529 532 539 542 545-546 551-552 557-558 564-565 578 582-583 585 591 601 606 625-626 631-633 643-644 673 690-693 701-702 706 711 721 723 734 740-741 743-744 748 751 754 761 778 788 795 802 808 819 826-827 829 837 843 869-871 875 878-880 884 896-897 902 920 933-934 946
leukocytes	Clontech	LUC003	12 14-15 18 32 111 134 137 172 221 277 280 311 316-325 436 454 467 549 552 568 585 603 643 691-692 698-699 734 744 751 754 784 797- 798 861 897 916 923
leukocytes	GIBCO	LUC001	2-4 7-8 13-17 20-23 31-33 38 43 48-49 51 53-57 63 66-68 74-78 85-88 93 97 122 124 129 131-132 134 137 140 163 166 168 171-172 175 188-192 197 200 208-213 216 221 223 231 236 242 252 257-258 261-263 268-270 272 277 279 287-288 294 307 311 314 316-326 329 337-339 341 373-374 376-377 381 388-392 396 400-401 413-414 423 436 441 450 454-455 459 463 465 467 489 491-493 495 498-499 504-505 507 514 518 520-522 524 526 529 531 533 536-537 539-540 545 552-554 556 568 571 577 580 585 589-590 596 599 602 605 607 610 612-613 615 618-619 621-622 625 638 640 642-644 664 667 677-678 684 690-693 696 700 703-704 707 713 715-718 721 727 734-735 738 740-746 748 753-754 758 775 778 780 789 794 797-798 801-802 815 817 825 827 829 834 836 846-847 850 859-861 863-864 866-867 871-872 878 884 886-888 891 896-897 902 904 910 913 916 921 923-926 929-932 936 943
lung	Strategene	LFB001	2-4 22 28 32-33 47 51 79 120 129 134 140 163 172 188 208 220-221 231 252 257 263 276-277 284 307 375 378-380 396 423 428 440 450 459 463 486 491 493 495 499 539 571 591 601 607 613 615 618 625 639 651 684 716-717 721 727 735 748 782 828 850 870-871
lymph node	Clontech	ALN001	43 98 131 140 163 188 221 245 277 299 311 491 515 546 564 593 603 610 615 630 682 694 707 717 800 831 850 878 880 936 939-941 947
lymphocyte	ATCC	LPC001	2 16 19-21 25 31-32 49 53 55-56 63 67 85-87 90 97 120 122 137 140 163 165 168 172 188 197-198 215-216 221 229 231 236-238 248 252 256 272-274 283-284 288 294 299 316-326 343 368 374 378 395 423 431 454-455 467 469 476 478 491 495 498 505 512 515 517-518 520-522 524

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macrophage	Invitrogen	HMP001	49 97 208 252 301 306 311 316-325 337-338 345-346 416 512 522 572 670 716 743 785-786 802 888 919 923
mammary gland	Invitrogen	MMG001	1-8 14-18 20-21 25 28-29 37 39 43 49 51-57 60 66-67 72 75-76 87 95 97 103-104 106 112 115 119 122 127 130 134 137 139 142 150 166-168 172 175 184 186 188-189 191-192 200 213-214 222-224 226-229 240 252 257-259 263 267 271 276 278 282 287-288 299 301-302 305 307-308 311-313 316-325 327-328 332 340-341 358 360-362 369 373 378 381 383 388 390-392 397 402-403 409 415-416 423 425 428-429 433 436 444 454-456 459-460 464 467 469 481 483-484 486 493 495 498-499 515 524-525 529-530 532-537 541-542 545 551-552 562 582-583 586-587 593 599-600 602 604-605 610 618-619 622 625-627 634 644 646-647 652 654-655 662 673 676 680 684 687-688 691-692 701-703 715 717 721 723 726 735 743 751 754 758 765-766 771 777-778 789 803 805 807 809-811 821 827 829 850 860 887-888 892 896 898 901-902 905 911 913 917 925-926 930 936 939-942
melanoma	Clontech	MEL004	3-4 16 20-21 43 46 48 97 103 147 163 188 191 213 216 221 231 241 245-246 260 262-263 316- 325 381 407 431 504 525 527 542 556 568 577 589 596 607 613 676 693 714 735 737-739 744 758-760 775 822 850 863 878 887 897
neuron	Strategene	NTD001	2 16 32 51 66 88 97 124 130 134 137 172 188- 189 191-192 231 252 257 260 277 291 373 424 431 454 460 489 495 523 525 582-583 591 631- 632 643 649 670 695 725-726 735 765 789 797- 798 837 850 878 884 888 890 913 929 946
neuron	Strategene	NTR001	2 5-6 20-22 136-137 188-194 197-198 224 311 375 381 410 457 462 475 495 531 546 548 552 599 618 678 743 752 819 828 890 895 897 930 934 938 944 946
neuronal cells	Strategene	NTU001	2 5-6 20-21 55-56 87 137 188-192 197-198 215- 216 260 287 291 310-311 316-325 365 375 423 457 459 470 499 532 542 564 576 598-599 623 643 651-652 673 721 726 743 745 752 754 765 780 787 789 822 829 870 875 888 896 917 919 929
ovary	Invitrogen	AOV001	2-7 10 13 18-22 25 27-28 30-31 33 38-39 41-43 45 48 50-51 53-56 62 66-67 69 72 74-75 80 83 85-87 93 95 99-101 107 112-115 120 124-126 129 131 134-137 140 142-143 147-148 162-163 172 178 188 191-192 200 204 208 212-213 220-221 225 229 231 235 237 246-247 252-253 258 261-262 264-265 267-272 276-279 282 287-288 290 293-294 299 307-308 311 316-327 332 337-

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			866 870-871 876-880 882 884 887 890-891 897
			899 901 906 910 913 920-921 923-924 933 939-
*****	Classical	- Promond	941 944 947
pituitary gland	Clontech	PIT004	41-42 83 85 97 134 193-194 204 208 213 224
			257-258 263-265 285-286 308 311 360-361 413 443 445 491 514 529 532 639 644 647 682 701-
		1	702 716 781 822 829 836 850 933 939-941 947
placenta	Clontech	PLA003	16 31 34 49 66 80 87 97 101-102 134 158 165
F			172 179 184 188 197-198 209-210 218 220 229
			235 249 256 267-270 277 287-288 302 307 332
			360-361 365 388 394 414 441 444 454 457 460
			493 498-500 505-506 509 529 531-532 550 559-
		1	560 564 572 587 601 625 630-632 638 672 682-
			684 689 706 708 726 733 735 744 754 761 784-
placenta	Invitrogen	APL001	786 793 863 875 897 924 929 937 34 68 102 263 444 493 520-521 534-535 689
pracerna	mvidogen	ALCOOL	706 754 797-798
placenta	Invitrogen	APL002	2 14-15 43 55-56 66-67 134 184 213 221 229
F]		252 257 263 277 287 394 443 529 532 618 622
			684 742 754 810 829 883 902
prostate	Clontech	PRT001	7-8 51 85 87 97 100 122 134 139 214 216 221
			231 257 271 276 335 337-338 392 400-401 431
		†	440 459 477 530 534-535 546 556 582-583 599
			622 631-632 639 651 663-664 673 683 707 715
	ļ		735 740 765 773-774 777 810 823 897 909 919 934 939-941 947
rectum	Invitrogen	REC001	18 54 66 134 137 169 188 200 213 225 251 263
rcotain	invittogen	RECOUL	288 311-313 316-325 340 388 423 429 441 454
			459 514 532 542 610 626 646 651 657 715 719
	ļ		723 728 735 740 758 766 785-786 823 829 833
			836 886 942
saliva gland	Clontech	SALS03	460
salivary gland	Clontech	ŠAL001	31 49 78 95 134 136-137 143 176 188 208 223
	1		244 268-270 284 308 311 316-325 388-389 391
	1		436 441 459 476 514-515 520-521 532 543 568
	1	-	589 596 610 619 684 691-692 713 718 727 736
	[754 777 824 836 864 867 878 883 897 901-902
skeletal muscle	Clontech	SKM001	916-917 933 938-941 42 98 156 163 191-192 200 261 305 311 395
Secietai illuscie	Cioniccii	GRIMOOI	415 462 468 504 531 543 566 582-583 585 594
			680 740 853 875 927 933 935
skeletal muscle	Clontech	SKM002	850
skin fibroblast	ATCC	SFB001	379-380 850
skin fibroblast	ATCC	SFB002	742 850

Tissue Origin	Library/RNA Source	HYSEQ Library Name	SEQ ID NOS:
skin fibroblast	ATCC	SFB003	87
small intestine	Clontech	SIN001	27-29 31 38 40 46 48 51 54 57-58 62 65 67 75 77 85 97 110 112 116-117 119 131-132 134 137 140 161 163 166 168 177 188 197-198 208 213 220 224 229 246 257 261-262 264-265 276-277 288 295 297 299 311 316-326 328-330 337-338 340 360-361 373 375 382 390-391 410 413 428- 429 436 438 440 453-454 459 468 476-477 497 507 511 522 531 536 538 542 545-546 548 552 556 564 570-571 576 580-581 586-587 591 596 599 605 610 613 619 625-626 643-644 651-653 664-666 668-670 677 680 684 693 700-702 706- 707 713-715 723-724 729-730 735 740 746 748 753-754 757-758 764 777-778 784-786 818 822 824 826-829 833-837 842 862-863 865-867 877- 878 886 897 900-902 906 913 916 921 925-926 936 939-941
spinal cord	Clontech	SPC001	18 23 33 37 42 51 67 87 92 94 97 100 140 162 184 188 191-192 208 213 220 231 248 262 268- 271 273-274 282 287-288 290 307 311 316-325 358 364 376-377 383 387 389-390 402 412 422 444 455 476 483-484 489 504 522 534-535 556 562 587-588 591 597 603-604 618-619 643 651 667-670 677 693 703-704 717-718 727 746 757 773 808 810 827 834-835 837 850 871-872 875 904 910 931-932 939-941
stomach	Clontech	STO001	18 65 88 163 188 208 213 261 272 277 286 294 336 373 396 412 459 514 553 602 610 647 651-652 671 673 714 774 790 831 833 842 850 876
testis	GIBCÓ	ATS001	1 3-4 14-16 28 31 45-46 66 85 90 95 97 103 112 128-130 134 140 163 166 188 191-192 199-200 213 226-228 261-265 267-271 284 302 311 316-325 327 379-380 391 413 421 428 444 454 457 459-460 467 491 493 495 500 505 519 525 529 532 534-535 545 552 556 566 568 575 596 599 613 616-617 647 649 651 680 684 703 707 716 719 721 727 734 738 740 744 748 758 765-766 774 777 782 802 810 817 827-828 834 842 846-847 850 862-863 871-872 878 880 892 901 916-917 921
thalamus	Clontech	THA002	2 87 96 103 106 189-192 208 252 258 295 308 311 367 376-377 383-384 445 455 459-460 498 529 587 598 602 629 654-655 705-706 715 717 723 754 775 810 817 822 864 867 881 892 927 930
thymus	Clonetech	ТНМ001	3-4 8 18 28 54 57 63 65 68 84 97 100 116-117 122 134 142 151 169 171-172 188 195 197-198 201 213 221 237 245 261 287 311 316-325 360- 361 376-377 423 441 444 459 489 491-493 495 498 504 507 514 527 532 534-536 539 553 556 568 571-572 590 595-596 599 610 618 622 631- 632 643 647 651 654-655 664 687-688 691-693 703 715 721 733-735 748 760 762 765 781 794 799 802 831 834 836 842 850 860-861 863 871 878 885 896-897 903 910 923 925-926 928 939- 941
thymus	Clontech	THMc02	2-4 17 20-22 37-38 42-43 46 63 65-68 76 88 95 103 118 120 124 134 137 140-141 143 163 165

Tissue Origin	Library/RNA	HYSEQ Library	SEQ ID NOS:
	Source	Name	
			171 179 182 189-194 198 200 212-215 221 226-228 231 244 257 262 266 276-277 287-288 297 299 307 316-325 341 352 358 360-361 373 376-377 379-381 389 391 394-396 403 410-411 436 440 445 450 459 463-464 469 478 491 495 500 507 511 519-521 530 532 539 542 550 555 560 563 576 581 587 595 601 610-611 613-614 618 622 625-626 631-632 638 642-644 657 664 667 670 673 680 683 687 691-693 699 715-716 721 740 743-744 747-754 761 763-765 771 777 780-781 784-787 790 794 805 811 820 826 831 834 841 845 861 867-868 878 881 883 891 893-894 896-897 902 904 910 912-914 918 923 936-941 946-947
thyroid gland	Clontech	THR001	1-2 18-21 27 32 38 42 46 49 51 53-56 66 72 77-
		·	78 87-88 97 115 119 124 130-131 134 136 152 163-165 172 183 188-192 202 212-213 216 221 224 229 235 241-243 252 257-258 261 263-265 267 277 279 297 301 305 308 311 316-325 327 357 363 373 376-377 381 383 389 397 400-401 410 413-414 427-428 443-444 446-447 457 459 463 467-469 475 482 489 495 499-500 504 509 513 519-522 526 529 533 537-538 542 545-546 548 556 564 567-568 582-583 589 592 599 605 608 611 621 623 630 642-644 648 651-652 654-655 664 672-676 684-686 691-694 700 706-708 713 717-718 721-72 725 729 731 734-735 740 748 753-754 760 764 766 771 774 777 781 792 797-800 802 805 826 828-829 834 842 850 861 863 868 876 879 897 899 901 910 913 929 937 939-941
trachea	Clontech	TRC001	20-21 38 112 161 163 188 263 267 327 413 420 457 459-460 471 514 540-541 552 572 574 622 639 654-655 676-677 691-692 707 725 743 748 765 777-778 862 868 897 905 908 944
umbilical cord	BioChain	FUC001	1-2 29 32 46 67 83 87 94 134 136 140 148 160 163 166 172 181 186-192 197-198 208 213 216 225-231 237 252 261-265 267-270 279 282 288 295 302 308 311 316-326 339-340 365 376-377 379-380 384 392-397 421 423 428 433 440 445 452 459 461 463-464 470 472 489 491 495 497 500 507 517-518 522 525-526 528 534-535 540 545-546 556-558 564 566 568 571-572 577 592 599 601 605 610 618 623 644 651 661 668-669 673 678 680 685-686 696 706 709 718 735-736 748 754 769 772-777 782 792 797-799 802 807 809 815 817 824 850 854-855 870 876 881 888 891 897 899 901 913 921 928 930-932
uterus	Clontech	UTR001	51 67 126 130 133 140 188-192 229 267 329 373 440 491 514 599 685-686 693 713 716-717 735 897 905 911 939-941
young liver	GIBCO	ALV001	3-4 17 20-21 32 43 55-56 70 100 134 137 163 172 174 179 186 188-192 200 213 216 219 221 229 232 252 275 301 311 315-325 378 381 392 441 459-460 497 499-500 514 524 526 533 539 550 568 571 588-589 595 619 622 631-632 642 658-659 664 677 680 693 700 707 713 719 743 754 757-758 766 807 834 863 867 876 884 887

Tissue Origin	Library/RNA Source	HYSEQ Library Name	SEQ ID NOS:
			904 907

TABLE 2

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
949	AAM253 84	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:899.	644	99
949	AAY275 81	Homo sapiens	HUMA- Human secreted protein encoded by gene No. 15.	644	99
949	gi137856 18	Mus musculus	sideroflexin 4	396	60
950	gi127691 2	Homo sapiens	Human putative ubiquitin C- terminal hydrolase (UHX1) mRNA, complete cds.	3719	100
950	gi126531 65	Homo sapiens	ubiquitin specific protease 11, clone MGC:8620 IMAGE:2961383, mRNA, complete cds.	3709	99
950	gi135294 94	Mus musculus	Similar to ubiquitin specific protease 11	3167	83
951	AAY116 96	Homo sapiens	MITU LckSH3 domain- combining protein.	4131	99
951	AAG786 48	Homo sapiens	SHAN- Human Ra1BPI related protein 82.	3875	99
951	gi136251 66	Homo sapiens	RALBP1 mRNA, complete cds.	3875	99
952	AAY116 96	Homo sapiens	MITU LckSH3 domain- combining protein.	3953	96
952	AAG786 48	Homo sapiens	SHAN- Human Ra1BPI related protein 82.	3697	96
952	gi136251 66	Homo sapiens	RALBP1 mRNA, complete cds.	3697	96
953	gi104371 91	Homo sapiens	cDNA: FLJ21146 fis, clone CAS09305.	2190	94
953	gi128432 22	Mus musculus	putative	1672	77
953	gi157788 93	Homo sapiens	Similar to hypothetical protein FLJ20967, clone MGC:11140 IMAGE:3837082, mRNA, complete cds.	1328	99
954	gi104371 91	Homo sapiens	cDNA: FLJ21146 fis, clone CAS09305.	2359	100
954	gi128432 22	Mus musculus	putative	1643	72
954	gi157788 93	Homo sapiens	Similar to hypothetical protein FLJ20967, clone MGC:11140 IMAGE:3837082, mRNA, complete cds.	1409	99
955	gi158253 77	Mus musculus	NIMA-related kinase 8	2009	89
955	gi158253 79	Danio rerio	NIMA-related kinase 8	1439	70
955	AAO019	Homo sapiens	HYSE- Human polypeptide SEQ	548	85

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	74		ID NO 15866.		
956	AAW886 60	Homo sapiens	HUMA- Secreted protein encoded by gene 127 clone HSUBW09.	175	97
956	AAO001 87	Homo sapiens	HYSE-Human polypeptide SEQ ID NO 14079.	70	55
956	gi138154 29	Sulfolobus solfataricus	Sugar transport related protein	70	40
957	AAB939 66	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14027.	1133	100
957	gi104338 35	Homo sapiens	cDNA FLJ12377 fis, clone MAMMA1002524, weakly similar to HYPOTHETICAL 117.8 KD PROTEIN IN STE2- FRS2 INTERGENIC REGION.	1133	100
957	AAO043 81	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 18273.	594	100
958	AAB952 97	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17525.	885	100
958	gi104349 41	Homo sapiens	cDNA FLJ13087 fis, clone NT2RP3002099.	885	100
958	gi167405 66	Homo sapiens	Similar to hypothetical protein FLJ13087, clone MGC:15009 IMAGE:3536735, mRNA, complete cds.	807	95
959	AAY276 76	Homo sapiens	HUMA- Human secreted protein encoded by gene No. 110.	474	100
959	gi529595 1	Oryza sativa	Similar to Herpesvirus papio BRRF2 homolog gene, partial cds.(U23857)	69	41
960	AAG892 62	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 382.	352	98
960	AAY307 21	I-Iomo sapiens	HUMA- Amino acid sequence of a human secreted protein.	352	98
960	AAB236 15	Homo sapiens	ALPH- Human secreted protein SEQ ID NO: 30.	343	97
961	AAY726 05	Homo sapiens	INCY- Human Electron Transfer Protein, ETRN-3.	579	100
961	AAO116 27	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 25519.	579	100
961	ÁAG039 41	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 8022.	570	98
962	gi146034 55	Homo sapiens	ubiquitin-conjugating enzyme E2A (RAD6 homolog), clone MGC:20175 IMAGE:3051041, mRNA, complete cds.	599	79
962	gi488377 3	Gallus gallus	ubiquitin-conjugating enzyme	599	79
962	gi144852 44	Mus musculus	ubiquitin-conjugating enzyme HR6A	599	79
963	gi146034 55	Homo sapiens	ubiquitin-conjugating enzyme E2A (RAD6 homolog), clone MGC:20175 IMAGE:3051041, mRNA, complete cds.	699	90
963	gi488377 3	Gallus gallus	ubiquitin-conjugating enzyme	699	90
963	gi144852	Mus musculus	ubiquitin-conjugating enzyme	699	90

SEQ ID	Hit ID	Speicies	Description	S score	Perc
	44		HR6A		
964	gi168770 66	Homo sapiens	clone MGC:24447 IMAGE:4077762, mRNA, complete cds.	362	100
964	gi168770 59	Homo sapiens	clone MGC:24437 IMAGE:4075637, mRNA, complete cds.	362	100
964	AAY949 59	Homo sapiens	GEMY Human secreted protein clone mc300_1 protein sequence SEQ ID NO:124.	204	97
965	AAB929 93	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11723.	2879	97
965	AAG813 64	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:246.	2879	97
965	gi140423 80	Homo sapiens	cDNA FLJ14690 fis, clone NT2RP2005270.	2879	97
966	AAB957 69	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18703.	2841	99
966	gi104366 07	Homo sapiens	cDNA FLJ14207 fis, clone NT2RP3003185, weakly similar to TROPOMYOSIN 1, FUSION PROTEIN 33.	2841	99
966	gi128331 93	Mus musculus	putative	2375	85
967	AAM254 13	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:928.	799	100
967	AAW678 63	Homo sapiens	HUMA- Human secreted protein encoded by gene 57 clone HFEBF41.	551	98
967	gi135438 11	Mus musculus	Unknown (protein for IMAGE:3591061)	95	33
968	gi104379 60	Homo sapiens	cDNA: FLJ21792 fis, clone HEP00441.	5865	99
968	AAE0618 6	Homo sapiens	HUMA- Human gene 58 encoded secreted protein fragment, SEQ ID NO:248.	3088	98
968	AAE0609 8	Homo sapiens	HUMA- Human gene 58 encoded secreted protein HSLCX03, SEQ ID NO:160.	3088	98
969	gi126980 79	Homo sapiens	mRNA for KIAA1767 protein, partial cds.	4441	98
969	AAM255 78	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1093.	3898	98
969	AAE0618 6	Homo sapiens	HUMA- Human gene 58 encoded secreted protein fragment, SEQ ID NO:248.	3464	98
970	AAY483 59	Homo sapiens	META- Human prostate cancer- associated protein 56.	403	98
970	gi152159 66	Homo sapiens	DL8Q12 gene for hypothetical protein, exons 1-2.	92	53
970	AAR992 56	Homo sapiens	UYAR- Natural killer lytic associated protein.	75	37
971	gi656182 7	Mus musculus	Kif21a	5684	76
971	gi656182 9	Mus musculus	Kif21b	4944	60
971	gi126979	Homo sapiens	mRNA for KIAA1708 protein,	4656	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	61		partial cds.		
972	AAW750 79	Homo sapiens	HUMA- Human secreted protein encoded by gene 23 clone HBMCT32.	148	100
973	AAY359 21	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 170.	548	99
973	AAM253 86	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:901.	494	96
973	AAY359 23	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 172.	494	96
974	AAY275 87	Homo sapiens	HUMA- Human secreted protein encoded by gene No. 21.	448	100
974	gi128025 61	Bovine herpesvirus 4	unknown	74	42
975	AAU162 97	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1250.	2420	98
975	AAB944 86	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15170.	1761	74
975	AAM940 18	Homo sapiens	HELI- Human stomach cancer expressed polypeptide SEQ ID NO 106.	1761	74
976	AAM412 64	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 6195.	903	99
976	AAM394 78	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 2623.	903	99
976	AAB437 71	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1216.	903	99
977	gi117616 11	Homo sapiens	kinesin-like protein RBKIN1 (RBKIN) mRNA, complete cds, alternatively spliced.	9290	99
977	gi117616 13	Homo sapiens	kinesin-like protein RBKIN2 (RBKIN) mRNA, complete cds, alternatively spliced.	9055	98
977	gi120540 30	Homo sapiens	mRNA for KINESIN-13A1 (KIN13A gene).	8955	97
978	gi759580 2	Mus musculus	ELKL motif kinase 2 short form	188	48
978	gi759580 0	Mus musculus	ELKL motif kinase 2 long form	188	48
978	AAM939 56	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 4158.	187	48
979	gi161984 56	Homo sapiens	Similar to RIKEN cDNA 0610040E02 gene, clone MGC:17973 IMAGE:3919892, mRNA, complete cds.	1050	100
979	gi167406 89	Mus musculus	RIKEN cDNA 0610040E02 gene	891	76
979	gi128413 15	Mus musculus	putative	891	76
980	gi147149 27	Homo sapiens	amino acid transporter system A1, clone MGC:17722 IMAGE:3871101, mRNA, complete cds.	2466	100
980	gi116407	Homo sapiens	amino acid transporter system	2466	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	43		A1 mRNA, complete cds.		
980	AAB935 56	Homo sapiens	HELI- Human protein sequence SEQ ID NO:12942.	2459	99
981	AAW750 90	Homo sapiens	HUMA- Human secreted protein encoded by gene 34 clone HTEGA81.	507	100
981	AAW751 52	Homo sapiens	HUMA- Human secreted protein encoded by gene 34 clone HKMLK44.	507	100
981	AAW751 51	Homo sapiens	HUMA- Human secreted protein encoded by gene 34 clone HTEGA81.	507	100
982	AAB947 54	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15811.	4658	99
982	gi140428 59	Homo sapiens	cDNA FLJ14964 fis, clone PLACE4000581, moderately similar to FIBROPELLIN I PRECURSOR.	4658	99
982	gi111771 64	Mus musculus	polydom protein	3880	81
983	AAB652 78	Homo sapiens	GETH Human PRO1185 (UNQ599) protein sequence SEQ ID NO:401.	993	100
983	AAM253 16	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:831.	993	100
983	AAM238 05	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1330.	993	100
984	AAY359 96	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 381.	589	66
984	AAB652 78	Homo sapiens	GETH Human PRO1185 (UNQ599) protein sequence SEQ ID NO:401.	567	65
984	AAM253 16	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:831.	567	65
985	gi168770 39	Homo sapiens	hypothetical protein FLJ22688, clone MGC:2438 IMAGE:2819805, mRNA, complete cds.	1952	91
985	gi133252 53	Homo sapiens	Similar to hypothetical protein FLJ22688, clone MGC:4098 IMAGE:2819805, mRNA, complete cds.	1952	91
985	gi104391 77	Homo sapiens	cDNA: FLJ22688 fis, clone HSI11003.	1695	89
986	gi512469	Homo sapiens	H.sapiens HLA-DMA gene.	1285	92
986	gi218187 6	Homo sapiens	Human DNA sequence from clone XX-O27 on chromosome 6. Contains the BRD2 gene encoding bromodomain-containing 2 protein, the HLA-DMA gene encoding major	1285	92
096	gi150303	Homo sapiens	histocompatibility complex class II DM alpha, two CpG islands, ESTs, STSs and GSSs, complete sequence. clone MGC:13532	1285	92
986	1 R1120202	1 1101110 sapiens	LOUIS MICC. 13332	1207	174

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	36		IMAGE:4245221, mRNA, complete cds.		
987	AAB425 29	Homo sapiens	CURA- Human ORFX ORF2293 polypeptide sequence SEQ ID NO:4586.	2683	99
987	gi126978 93	Homo sapiens	mRNA for KIAA1674 protein, partial cds.	2683	99
987	AAM905 36	Homo sapiens	HUMA- Human immune/haematopoietic antigen SEQ ID NO:18129.	1512	98
988	gi222453 9	Homo sapiens	Human mRNA for KIAA0299 gene, partial cds.	9903	99
988	AAY165 88	Homo sapiens	RHON A protein that interacts with presenilins.	4733	97
988	gi730171 0	Drosophila melanogaster	CG11754 gene product	3074	43
989	AAW748 87	Homo sapiens	HUMA- Human secreted protein encoded by gene 160 clone HCELB21.	203	100
989	AAM244 01	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1926.	183	85
989	gi929400 3	Arabidopsis thaliana	cytochrome P450-like protein	70	39
990	gi119904 20	Homo sapiens	mRNA for MOP-3, complete cds.	4359	93
990	AAB932 29	Homo sapiens	HELI- Human protein sequence SEQ ID NO:12223.	3950	99
990	gi702311 4	Homo sapiens	cDNA FLJ10833 fis, clone NT2RP4001206, moderately similar to Drosophila melanogaster strawberry notch mRNA.	3950	99
991	gi433710 5	Homo sapiens	MSH55 gene, partial cds; and CLIC1, DDAH, G6b, G6c, G5b, G6d, G6e, G6f, BAT5, G5b, CSK2B, BAT4, G4, Apo M, BAT3, BAT2, AIF-1, IC7, LST-1, LTB, TNF, and LTA genes, complete cds.	668	100
991	gi29969	Homo sapiens	Human gene for casein kinase II subunit beta (EC 2.7.1.37).	668	100
991	gi29967	Homo sapiens	Human mRNA for phosvitin/casein kinase type II beta subunit (EC 2.7.1.37).	668	100
992	AAY108 40	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	349	100
993	AAM259 27	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1442.	824	100
993	AAY733 25	Homo sapiens	INCY- HTRM clone 001106 protein sequence.	820	99
993	AAG038 70	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 7951.	819	99
994	AAB940 43	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14201.	5698	99
994	gi104339 76	Homo sapiens	cDNA FLJ12471 fis, clone NT2RM1000894, highly similar to DNA-DIRECTED RNA	5698	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			POLYMERASE I 135 KD POLYPEPTIDE (EC 2.7.7.6).		
994	gi162159 4	Mus musculus	second largest subunit of RNA polymerase I	5095	84
995	AAU158 80	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 833.	1091	100
995	ABB0334 5	Homo sapiens	HUMA- Human musculoskeletal system related polypeptide SEQ ID NO 1292.	1091	100
995	gi138794 42	Mus musculus	Similar to RIKEN cDNA 2310035M22 gene	1056	93
996	gi669260 7	Mus musculus	MGA protein	3446	77
996	gi304356 0	Homo sapiens	mRNA for KIAA0518 protein, partial cds.	3272	100
996	AAB945 60	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15332.	1933	99
997	gi577139 2	Homo sapiens	RAB-like protein 2B (RABL2B) mRNA, complete cds.	718	99
997	gi159288 38	Homo sapiens	RAB, member of RAS oncogene family-like 2B, clone MGC:10160 IMAGE:3906749, mRNA, complete cds.	718	99
997	gi726396 1	Homo sapiens	Human DNA sequence from clone RP11-395L14. Contains (part of) up to six novel genes or pseudogenes, the gene for a novel forkhead protein similar to FOXD4 (forkhead box D4, FREAC5), the gene for a novel phosphoglucomutase like protein, a pseudogene similar to part of DEAD/H (Asp-Glu-Ala-Asp/His) box (S.cerevisiae CHL1-like helicase), an RPL23A (60S ribosomal protein L23A) pseudogene, the RABL2A gene for RAB-like 2A, the gene for a novel protein similar to small nuclear ribonucleoprotein polypeptide A' (SNRPA1) and the 3' part of the gene for a novel protein similar to acrosin (ACR). Contains ESTs, STSs, GSSs and nine putative CpG islands, complete sequence.	714	97
998	gi104402 02	Homo sapiens	cDNA: FLJ23495 fis, clone LNG02228.	2398	99
998	AAU172 89	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 854.	487	97
998	AAM926 81	Homo sapiens	HUMA- Human digestive system antigen SEQ ID NO: 2030.	487	97
999	gi126532 49	Homo sapiens	Similar to CAAX box 1, clone MGC:8471 IMAGE:2821721, mRNA, complete cds.	450	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
999	AAY322 07	Homo sapiens	INCY- Human receptor molecule (REC) encoded by Incyte clone 2936050.	429	95
999	gi757623 2	Homo sapiens	Human DNA sequence from clone RP4-809E13 on chromosome Xq26.1-27.1. Contains the gene for a putative prenylated protein, two putative prenylated protein pseudogenes, ESTs, STSs, GSSs and three putative CpG islands, complete sequence.	397	87
1000	gi157785 56	Homo sapiens	alpha-1-B glycoprotein precursor (A1BG) mRNA, complete cds.	1487	98
1000	gi118773 48	Rattus norvegicus	putative alpha IB-glycoprotein	518	40
1000	AAY646 70	Homo sapiens	GEST Human 5' EST related polypeptide SEQ ID NO:831.	430	76
1001	AAY873 15	Homo sapiens	INCY- Human signal peptide containing protein HSPP-92 SEQ ID NO:92.	2817	100
1001	AAM937 93	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3821.	2527	99
1001	gi128045 27	Homo sapiens	hypothetical protein FLJ22405, clone MGC:2543 IMAGE:2961594, mRNA, complete cds.	2194	100
1002	gi416030 4	Mus musculus	HS1 binding protein 3	1449	75
1002	AAB958 01	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18781.	1082	100
1002	gi104366 60	Homo sapiens	cDNA FLJ14249 fis, clone OVARC1001200, weakly similar to Mus musculus mRNA for HS1 binding protein 3.	1082	100
1003	AAY873 15	Homo sapiens	INCY- Human signal peptide containing protein HSPP-92 SEO ID NO:92.	1837	100
1003	gi128045 27	Homo sapiens	hypothetical protein FLJ22405, clone MGC:2543 IMAGE:2961594, mRNA, complete cds.	1837	100
1003	gi104387 80	Homo sapiens	cDNA: FLJ22405 fis, clone HRC08294.	1837	100
1004	AAM937 93	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3821.	3401	99
1004	gi173906 94	Mus musculus	Similar to hypothetical protein FLJ22405	2543	90
1004	AAY873 15	Homo sapiens	INCY- Human signal peptide containing protein HSPP-92 SEQ ID NO:92.	2535	100
1005	AAY873 27	Homo sapiens	INCY- Human signal peptide containing protein HSPP-104 SEQ ID NO:104.	584	100
1005	AAY597 05	Homo sapiens	GEST Secreted protein 51-41-1- F10-FL1.	554	95

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1005	AAY128 65	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO:455.	208	100
1006	AAY362 37	Homo sapiens	HUMA- Human secreted protein encoded by gene 14.	177	100
1007	AAY873 10	Homo sapiens	INCY- Human signal peptide containing protein HSPP-87 SEQ ID NO:87.	370	100
1007	AAG773 44	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:8110.	201	79
1007	gi141981 25	Homo sapiens	clone MGC:18053 IMAGE:4148889, mRNA, complete cds.	68	61
1008	AAB941 08	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14340.	1844	96
1008	AAU045 57	Homo sapiens	GETH Human Stra6 homologue, PRO10282.	1844	96
1008	gi135609 66	Homo sapiens	STRA6 isoform 1 mRNA, complete cds, alternatively spliced.	1844	96
1009	AAY383 94	Homo sapiens	HUMA- Human secreted protein encoded by gene No. 9.	213	100
1010	gi104323 82	Homo sapiens	Human DNA sequence from clone RP4-717123 on chromosome 1p21.2-22.3 Contains ESTs, STSs and GSSs. Contains part of a novel gene for a protein similar to Xenopus laevis Sojo protein, a novel gene and a 60S ribosomal protein L39 (RPL39) pseudogene, complete sequence.	3267	100
1010	gi569043 5	Xenopus laevis	nuclear protein Sojo	1386	44
1010	AAG750 36	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:5800.	557	98
1011	AAG005 17	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 4598.	160	48
1011	AAO024 74	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 16366.	153	45
1011	gi854065	Human herpesvirus 6	U88	145	50
1012	AAY195 61	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	514	100
1012	AAB381 57	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 39 SEQ ID NO:96.	70	30
1012	AAU049 58	Homo sapiens	GETH Human Interleukin 17 receptor, IL-17RH4.	69	60
1013	AAR152 22	Homo sapiens	TEXA Chronic myelogenous leukaemia-derived myeloid-related protein.	635	100
1013	gi32402	Homo sapiens	Human mRNA for HP-1, a member of the corticostatin/defensin family.	493	100
1013	gi292363	Homo sapiens	Human neutrophil peptide-1	493	100

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
			gene, complete cds.		
1014	gi633017 6	Homo sapiens	mRNA for KIAA1167 protein, partial cds.	4079	99
1014	gi898084 1	Rattus norvegicus	GRIP-associated protein 1 long form	3814	92
1014	gi173892 63	Mus musculus	Similar to GRIP-associated protein 1	3646	89
1015	gi104430 47	Homo sapiens	Human DNA sequence from clone RP11-465L10 on chromosome 20. Contains 10 CpG islands, ESTs, STSs and GSSs. Contains the gene for a novel protein similar to Drosophila CG11399, the gene for a novel C2H2 type zinc finger protein similar to chicken FZF-1, a Ferritin light polypeptide (FTL) pseudogene, the MMP9 gene for matrix metalloproteinase 9 (gelatinase B, 92kD gelatinase, 92kD type IV collagenase) (CLG4B), a novel gene, the SLC12A5 gene for solute carrier family 12, (potassium-chloride transporter) member 5 (KIAA1176) and the 3' end of gene KIAA1637, complete sequence.	6471	
1015	gi104389 18	Homo sapiens	cDNA: FLJ22504 fis, clone HRC11430.	4392	98
1015	gi984814	Gallus gallus	zinc finger protein	2127	58
1016	AAE0607 7	Homo sapiens	HUMA- Human gene 37 encoded secreted protein HDPCJ91, SEQ ID NO:139.	267	100
1016	AAY871 00	Homo sapiens	HUMA- Human secreted protein sequence SEQ ID NO:139.	267	100
1016	gi127188 12	Yarrowia lipolytica	ND3 protein	69	48
1017	AAY864 63	Homo sapiens	HUMA- Human gene 47- encoded protein fragment, SEQ ID NO:378.	361	100
1017	AAY863 20	Homo sapiens	HUMA- Human secreted protein HPRBC80, SEQ ID NO:235.	361	100
1017	gi754963 3	Arabidopsis thaliana	hypothetical protein	70	31
1018	AAM253 84	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:899.	1126	100
1018	AAY275 81	Homo sapiens	HUMA- Human secreted protein encoded by gene No. 15.	774	100
1018	gi137856 18	Mus musculus	sideroflexin 4	660	60
1019	gi452890	Cricetulus migratorius	serum amyloid P; SAP; female protein; FP	158	71
1019	gi387051	Cricetulus Iongicaudatus	FP	157	71
1019	gi347257	Mesocricetus auratus	serum amyloid P component	157	71

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1020	gi174287 83	Ralstonia solanacearum	PROBABLE NADP- DEPENDENT OXIDOREDUCTASE OXIDOREDUCTASE PROTEIN	68	29
1020	gi151592 26	Agrobacterium tumefaciens str. C58 (Cereon)	AGR_L_1604p	67	28
1020	gi177425 00	Agrobacterium tumefaciens str. C58 (Dupont)	succinoglycan biosynthesis protein	67	28
1021	gi165539 33	Homo sapiens	cDNA FLJ25217 fis, clone REC08938, highly similar to Oryctolagus cuniculus Na+/glucose cotransporter- related protein mRNA.	1477	100
1021	AAE0661 4	Homo sapiens	SAGA Human protein having hydrophobic domain, HP03974.	1394	100
1021	gi152098 08	Homo sapiens	unnamed protein product	1394	100
1022	AAY167 81	Homo sapiens	GEMY Human secreted protein (clone bh157_7).	1258	100
1022	gi126540 11	Homo sapiens	similar to rat nuclear ubiquitous casein kinase 2, clone MGC:5494 IMAGE:3452665, mRNA, complete cds.	1258	100
1022	gi120536 24	Homo sapiens	mRNA for NUCKS protein.	1258	100
1023	AAB832 46	Homo sapiens	MILL- Human FATP1 SEQ ID NO: 47.	3372	100
1023	AAB832 39	Homo sapiens	MILL- Human FATP1 SEQ ID NO: 38.	3372	100
1023	AAB832 34	Homo sapiens	MILL- Human FATP1 SEQ 1D NO: 32.	3372	100
1024	gi159299 04	Homo sapiens	Similar to dolichyl-phosphate mannosyltransferase polypeptide 2, regulatory subunit, clone MGC:21559 IMAGE:4181887, mRNA, complete cds.	366	100
1024	AAY579 05	Homo sapiens	INCY- Human transmembrane protein HTMPN-29.	153	100
1024	gi379036 3	Homo sapiens	mRNA for DPM2, complete cds.	153	100
1025	AAY257 32	Homo sapiens	HUMA- Human secreted protein encoded from gene 22.	212	100
1026	AAG770 16	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:7780.	291	100
1026	AAS0319 3_aa1	Homo sapiens	GEHO Human lymphocyte cell surface antigen CD53 cDNA sequence.	116	95
1026	AAV812 20_aa1	Homo sapiens	GEHO Human CD53 antigen cDNA.	116	95
1027	AAY118 48	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID No: 448.	193	100
1027	AAY359 56	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO.	193	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			205.		- Incurry
1027	AAY360 98	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 483.	193	100
1028	AAM939 42	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 4126.	1354	99
1028	ABB1142 2	Homo sapiens	HYSE- Human Zn finger protein homologue, SEQ ID NO:1792.	953	92
1028	gi646720 6	Homo sapiens	GIOT-4 mRNA for gonadotropin inducible transcription repressor-4, complete cds.	883	56
1029	gi128352 22	Mus musculus	putative	1562	82
1029	gi263665 4	Homo sapiens	Human myosin binding protein H (MyBP-H) gene, complete cds.	1206	66
1029	gi154681 3	Mus musculus	myosin binding protein H	1203	66
1030	AAY363 32	Homo sapiens	HUMA- Human secreted protein encoded by gene 109.	268	100
1030	gi100389 17	Buchnera sp. APS	hypothetical protein	76	42
1030	gi750051	Unknown	hypothetical protein F35E2.7 - Caenorhabditis elegans >	63	38
1031	gi971940 9	Homo sapiens	candidate tumor suppressor protein mRNA, complete cds.	2030	99
1031	gi128565 14	Mus musculus	putative	922	86
1031	AAU220 41	Homo sapiens	HUMA- Human cardiovascular system antigen polypeptide SEQ ID No 815.	703	92
1032	AAR152 22	Homo sapiens	TEXA Chronic myelogenous leukaemia-derived myeloid- related protein.	635	100
1032	gi32402	Homo sapiens	Human mRNA for HP-1, a member of the corticostatin/defensin family.	493	100
1032	gi292363	Homo sapiens	Human neutrophil peptide-I gene, complete cds.	493	100
1033	gi165525 02	Homo sapiens	cDNA FLJ32395 fis, clone SKMUS2000117, moderately similar to Homo sapiens MAGEF1 mRNA.	1599	100
1033	gi126591 42	Mus musculus	mage-g1	1178	76
1033	gi128571 18	Mus musculus	putative	1178	76
1034	AAB496 50	Homo sapiens	CURA- Human SEC2 protein sequence SEQ ID 4.	2615	100
1034	gi122265 32	Homo sapiens	unnamed protein product	2615	100
1034	gi147148 86	Mus musculus	Unknown (protein for IMAGE:3498778)	2343	89
1035	AAM237 21	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1246.	2889	100
		Homo sapiens	HYSE- Human protein SEQ ID	2676	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	29		NO 1891.		
1035	AAB883 70	Homo sapiens	HELI- Human membrane or secretory protein clone PSEC0106.	1611	100
1036	AAY596 57	Homo sapiens	GEST Secreted protein 108-003-5-0-A8-FL.	689	100
1036	gi144956 99	Homo sapiens	clone MGC:15961 IMAGE:3538818, mRNA, complete cds.	689	100
1036	gi144245 22	Homo sapiens	clone MGC:14327 IMAGE:4298098, mRNA, complete cds.	689	100
1037	AAY276 26	Homo sapiens	HUMA- Human secreted protein encoded by gene No. 60.	352	100
1038	AAD183 56_aa1	Homo sapiens	INCY- Human lipid metabolism enzyme-5 (LME-5) cDNA.	1748	100
1038	AAB735 60	Homo sapiens	MILL- Human lipase 18892.	1748	100
1038	AAE1099 6	Homo sapiens	INCY- Human lipid metabolism enzyme-5 (LME-5) protein.	1748	100
1039	AAG034 75	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 7556.	448	100
1039	AAY128 61	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO:451.	448	100
1039	gi56760	Rattus norvegicus	neuronal nonacetlycholine binding subunit	75	23
1040	AAY530 49	Homo sapiens	GEMY Human secreted protein clone cj378_3 protein sequence SEQ ID NO:104.	463	100
1040	gi136036 74	Stellilabium pogonostalix	maturase	78	38
1040	gi136036 76	Telipogon parvulus	maturase	74	36
1041	AAY413 54	Homo sapiens	HUMA- Human secreted protein encoded by gene 47 clone HUFCJ30.	288	100
1041	gi152304	Arabidopsis thaliana	putative protein	63	43
1042	AAW747 77	Homo sapiens	HUMA- Human secreted protein encoded by gene 48 clone HFCAI74.	245	100
1042	gi154889 20	Homo sapiens	Similar to RIKEN cDNA 2010107G23 gene, clone MGC:9596 IMAGE:3896656, mRNA, complete cds.	245	100
1042	gi128424 65	Mus musculus	putative	241	97
1043	gi152780 28	Homo sapiens	beta-galactose-3-O- sulfotransferase, 4, clone MGC:15045 IMAGE:3636329, mRNA, complete cds.	2568	100
1043	gi147945 24	Homo sapiens	Galbeta1-3GalNAc 3'- sulfotransferase mRNA, complete cds.	2564	99
1043	AAB938 92	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13832.	2556	99
1044	gi153215	Homo sapiens	empty spiracles-like protein	1341	100

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
	90		(EMX2) mRNA, complete cds.		
1044	gi132767 73	Homo sapiens	mRNA; cDNA DKFZp761M1614 (from clone DKFZp761M1614).	1341	100
1044	gi165496 86	Homo sapiens	cDNA FLJ30479 fis, clone BRA WH1000168, highly similar to Homeotic protein emx2.	1336	99
1045	gi168770 66	Homo sapiens	clone MGC:24447 IMAGE:4077762, mRNA, complete cds.	362	100
1045	gi168770 59	Homo sapiens	clone MGC:24437 IMAGE:4075637, mRNA, complete cds.	362	100
1045	AAY949 59	Homo sapiens	GEMY Human secreted protein clone mc300_1 protein sequence SEQ ID NO:124.	204	97
1046	gi239445	Caenorhabditis elegans	Hypothetical protein ZC178.2	406	30
1046	AAB875 75	Homo sapiens	GETH Human PRO1342.	384	38
1046	AAY994 08	Homo sapiens	GETH Human PRO1342 (UNQ697) amino acid sequence SEQ ID NO:243.	384	38
1047	gi120531 47	Homo sapiens	mRNA; cDNA DKFZp434F1726 (from clone DKFZp434F1726).	1484	98
1047	ABB1173 9	Homo sapiens	HYSE- Human IF-gamma receptor homologue, SEQ ID NO:2109.	1044	100
1047	AAR049 32	Homo sapiens	YEDA Interferon-gamma receptor segment from clone 39 responsiblefor binding the target.	829	98
1048	AAG739 89	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:4753.	957	100
1048	AAB589 98	Homo sapiens	HUMA- Breast and ovarian cancer associated antigen protein sequence SEQ ID 706.	957	100
1048	AAM891 00	Homo sapiens	HUMA- Human immune/haematopoietic antigen SEQ ID NO:16693.	362	67
1049	gi100473 33	Homo sapiens	mRNA for KIAA1628 protein, partial cds.	5204	100
1049	gi118629 39	Mus musculus	DDM36	4378	89
1049	gi118629 41	Mus musculus	DDM36E	4366	88
1050	gi190647	Homo sapiens	Human pregnancy-specific beta- 1 glycoprotein (PSG) mRNA, complete cds.	611	72
1050	gi984306	Homo sapiens	Human pregnancy-specific glycoprotein 13 (PSG13') mRNA, complete cds.	606	71
1050	gi190568	Homo sapiens	Human pregnancy-specific beta- 1-glycoprotein 11 (PSG11) mRNA, complete eds.	585	64
1051	AAM436	Homo sapiens	HUMA- Human polypeptide	588	100

105	SEQ	Hit ID	Speicies	Description	S score	Percent
1051 AAM435 Homo sapiens HUMA- Human polypeptide S88 100	ID	55		(000 ID VIO 222		identity
SEQ ID NO 266.	1051		Homo caniene		500	100
1051	1031	1	Homo saptens		300	100
A3	1051		Homo sapiens		588	100
1052 gi147783 Rattus TRP2 524 74 1052 gi110956 Mus musculus transient receptor potential 521 73 1053 AAB941 Homo sapiens RELI- Human protein sequence SEQ ID NO:14511. 1053 gi104342 Homo sapiens SEQ ID NO:14511. 1053 gi104342 Homo sapiens Cone MGC:5179 Transient receptor potential 521 73 1053 gi104342 Homo sapiens SEQ ID NO:14511. 1054 AAY383 Homo sapiens Homo sapiens GOMA FLJI2623 fis, clone 1209 97 1054 AAY383 Homo sapiens HOMA- Human secreted protein 152 90 1054 gi136246 Euglena viridis maturase-like protein 63 42 1055 gi161247 Homo sapiens HUMA- Human secreted protein 320 100 1056 AAV275 Homo sapiens HUMA- Human secreted protein 65 27 1055 gi161247 Caulobacter crescentus Caulobacter crescentus Caulobacter crescentus Caulobacter crescentus Caulobacter crescentus Caulobacter crescentus Fuman polypeptide SEQ 613 100 1056 AAO087 Homo sapiens HYSE- Human polypeptide SEQ 57 1056 Gi104375 Homo sapiens HOMA- Fuman secreted protein 65 27 1057 AAE0517 Homo sapiens CDNA- FLI21463 fis, clone COL04765. Homo sapiens CDNA- FLI21463 fis, clone COL04765. Homo sapiens CDNA- FLI21463 fis, clone CDNA- FLI21463 fis		_				1
6			<u> </u>			1
1052	1052	_		TRP2	524	74
1052 gi110956 Mus musculus transient receptor potential channel 2-beta transient receptor potential channel 2-alpha 1053 AAB941 Homo sapiens HELI- Human protein sequence 1209 97 SEQ (ID NO:14511. 1209 1053 gi104342 Homo sapiens CDNA FLJ12623 fis, clone 1209 97 NT2RM4001746. 1053 gi126527 Homo sapiens Clone MGC:3179 1066 88 1053 42 1054 AAY383 Homo sapiens HUMA- Human secreted protein 152 90 1054 gi136246 Euglena viridis maturase-like protein 63 42 1055 AAY275 Homo sapiens HUMA- Human secreted protein 63 42 1055 gi134216 Caulobacter cenceded by gene No. 16. 105 gi161247 Caulobacter crescentus Caulobacter crescentus Caulobacter crescentus Caulobacter crescentus 1056 AAO087 Homo sapiens HYSE- Human polypeptide SEQ 613 100	1070					+ <u></u>
1052 gi110956 Mus musculus transient receptor potential channel 2-alpha channel 2-alpha flower flat. flat. flower flat. fla	1052		Mus musculus		521	73
1053 AAB941 Homo sapiens HELI- Human protein sequence 1209 97	1052		Mus musculus		521	73
1053 AAB941 Homo sapiens SEQ ID NO:14511.	1052	17.	Trans massards	channel 2-alpha	1 32.] ' -
88	1053		Homo sapiens	HELI- Human protein sequence	1209	97
24				SEQ ID NO:14511.		
1053 gi126527 Homo sapiens Clone MGC:5179 IMAGE:2900118, mRNA, complete cds. 1054 AAY383 Homo sapiens HUMA- Human secreted protein encoded by gene No. 4. 1054 gi136246 Euglena viridis maturase-like protein 63 42 1055 AAY275 Homo sapiens HUMA- Human secreted protein 320 100	1053	, –	Homo sapiens		1209	97
1054 AAY383	1052		77		1000	100
Complete cds. Complete cds	1053		Homo sapiens		1066	88
1054		91				į į
89	1054	AAY383	Homo sapiens		152	90
35			<u> </u>			
1055	1054	gi136246	Euglena viridis	maturase-like protein	63	42
82						
1055 gi134216 Caulobacter crescentus C	1055	l .	Homo sapiens		320	100
31	1055		Caulobacter		65	27
1055 gi161247 Caulobacter crescentus > [Caulobacter crescentus > Caulobacter	1033		· ·	conscived hypothetical protein	03	"
13	1055	gi161247		conserved hypothetical protein	65	27
1056						
1056			; -		J	
1056 gi104375 Homo sapiens cDNA: FLJ21463 fis, clone COL04765. 1056 AAY453 Homo sapiens HUMA- Human secreted protein fragment encoded from gene 28. 1057 AAE0517 Homo sapiens INCY- Human drug metabolising enzyme (DME-6) protein. 1057 AAU122 Homo sapiens GETH Human PRO4404 1830 99 polypeptide sequence. 1057 AAU183 Homo sapiens HUMA- Human endocrine 1092 95 polypeptide SEQ ID No 318. 1058 AAG812 Homo sapiens ZYMO Human AFP protein 815 96 1058 gi140358 Homo sapiens Unnamed protein product 815 96 1058 AAG812 Homo sapiens ZYMO Human AFP protein Sequence SEQ ID NO:66. 1059 AAY359 Homo sapiens GEST Extended human secreted 581 97 1059 ABB1196 Homo sapiens HYSE- Human neuroendocrine 246 100 1059 ABB1196 Homo sapiens HYSE- Human neuroendocrine SEQ ID NO:2330.	1056	4.4.0097		HVCP II	612	100
1056 gi104375 Homo sapiens CDNA: FLJ21463 fis, clone COL04765. COL	1036		riomo sapiens		013	100
1056	1056		Homo sapiens	cDNA: FLJ21463 fis, clone	269	57
Ragment encoded from gene 28.				COL04765.		
1057	1056	AAY453	Homo sapiens		266	58
5						
District District	1057		Homo sapiens		1830	99
1057		2				
25	1057	AAU122	Homo sapiens		1830	199
63						
1058	1057	AAU183	Homo sapiens	HUMA- Human endocrine	1092	95
T4 Sequence SEQ ID NO:66.				polypeptide SEQ ID No 318.		
1058 gi140358 Homo sapiens unnamed protein product 815 96 1058 AAG812 Homo sapiens ZYMO Human AFP protein 652 99 73 sequence SEQ ID NO:64. 1059 AAY359 Homo sapiens GEST Extended human secreted protein sequence, SEQ ID NO. 229. 1059 ABB1196 Homo sapiens HYSE- Human neuroendocrine-specific protein-like homologue, SEQ ID NO:2330.	1058		Homo sapiens		815	96
S6 S7 S7 S7 S7 S7 S7 S7	1058		Homo saniens		815	96
1058 AAG812 Homo sapiens ZYMO Human AFP protein sequence SEQ ID NO:64. 1059 AAY359 Homo sapiens GEST Extended human secreted protein sequence, SEQ ID NO. 229. 1059 ABB1196 Homo sapiens HYSE- Human neuroendocrine-specific protein-like homologue, SEQ ID NO:2330.	1030		Tromo sapions		015	"
73 sequence SEQ ID NO:64. 1059 AAY359 Homo sapiens GEST Extended human secreted protein sequence, SEQ ID NO. 229. 1059 ABB1196 Homo sapiens HYSE- Human neuroendocrine-specific protein-like homologue, SEQ ID NO:2330.	1058		Homo sapiens	ZYMO Human AFP protein	652	99
80 protein sequence, SEQ ID NO. 229. 1059 ABB1196 Homo sapiens HYSE- Human neuroendocrine- specific protein-like homologue, SEQ ID NO:2330.		73	_	sequence SEQ ID NO:64.		
229. 1059 ABB1196 Homo sapiens HYSE- Human neuroendocrine- specific protein-like homologue, SEQ ID NO:2330.	1059		Homo sapiens		581	97
1059 ABB1196 Homo sapiens HYSE- Human neuroendocrine- 0 specific protein-like homologue, SEQ ID NO:2330.		80				1
0 specific protein-like homologue, SEQ ID NO:2330.	1050	ARR1106	Homo seriens		246	100
SEQ ID NO:2330.	1039	l	Tronno sabiens	• · · · · · · · · · · · · · · · · · · ·	~ ~ 0	100
		-				}
	1059	AAZ3831	Homo sapiens		240	97

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	9_aa1		protein cDNA clone HP02061.		
1060	gi795932 5	Homo sapiens	mRNA for KIAA1529 protein, partial cds.	8481	100
1060	gi128363 54	Mus musculus	putative	511	63
1060	AAW036 26	Homo sapiens	UYNY Human thyrotropin GPR N-terminal sequence.	236	31
1061	AAY762 00	Homo sapiens	HUMA- Human secreted protein encoded by gene 77.	262	100
1061	gi159243 50	Staphylococcus aureus subsp. aureus Mu50	oxacillin resistance-related FmtC protein	64	31
1061	gi124836 31	Staphylococcus aureus	FmtC	64	31
1062	AAY362 70	Homo sapiens	HUMA- Human secreted protein encoded by gene 47.	359	100
1062	gi499607 9	Human herpesvirus 6	64% identical to U95 gene of strain U1102 of HHV-6~MCMV IE2 homolog, US22 gene family	68	37
1062	gi573357 6	Human herpesvirus 6B	U95	66	37
1063	gi526274 8	Rattus norvegicus	Proline rich synapse associated protein 2	3930	93
1063	gi738105 6	Rattus norvegicus	Shank postsynaptic density protein 3a	3895	92
1063	gi133591 73	Homo sapiens	mRNA for KIAA1650 protein, partial cds.	3085	100
1064	gi143367 49	Homo sapiens	16p13.3 sequence section 6 of 8.	974	99
1064	gi104400 21	Homo sapiens	cDNA: FLJ23360 fis, clone HEP15172.	974	99
1064	AAB941 88	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14511.	914	78
1065	AAB941 88	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14511.	1227	100
1065	gi104342 24	Homo sapiens	cDNA FLJ12623 fis, clone NT2RM4001746.	1227	100
1065	gi126527 97	Homo sapiens	clone MGC:5179 IMAGE:2900118, mRNA, complete cds.	1084	90
1066	AAY824 88	Homo sapiens	NISC- Human L-type amino acid transporter 1 protein sequence SEQ ID NO:2.	2438	94
1066	gi592673 2	Homo sapiens	mRNA for L-type amino acid transporter 1, complete cds.	2438	94
1066	gi442664 0	Homo sapiens	L-type amino acid transporter subunit LAT1 mRNA, complete cds.	2438	94
1067	AAG813 26	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:170.	1135	100
1067	gi140359 60	Homo sapiens	unnamed protein product	1135	100
1067	AAY788 05	Homo sapiens	PROT- Hydrophobic domain containing protein clone HP10508 protein sequence.	1053	99
1068	gi120529 83	Homo sapiens	mRNA; cDNA DKFZp434I1610 (from clone DKFZp434I1610);	2502	63

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
			complete cds.		
1068	AAM797 60	Homo sapiens	HYSE- Human protein SEQ ID NO 3406.	2270	61
1068	AAB943 88	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14947.	2050	57
1069	gi126550 91	Homo sapiens	AD-003 protein, clone MGC:783 IMAGE:3050940, mRNA, complete cds.	546	53
1069	gi652379 9	Homo sapiens	adrenal gland protein AD-003 mRNA, complete cds.	536	53
1069	AAM518 24	Homo sapiens	BIOW- Human transcription regulator 13.	370	61
1070	gi 143280 09	Homo sapiens	clone IMAGE:3942111, mRNA, partial cds.	2392	100
1070	gi145858 69	Homo sapiens	hypothetical protein SB146	2389	99
1070	gi160417 67	Homo sapiens	Similar to NADPH oxidase- related, C2 domain-containing protein, clone MGC:23187 IMAGE:4851468, mRNA, complete cds.	2384	99
1071	ABB1224 5	Homo sapiens	HYSE- Human CKSR-2 homologue, SEQ ID NO:2615.	256	50
1071	AAZ8823 9_aa1	Homo sapiens	INCY- Human cytokine signal regulator CKSR-2 encoding cDNA SEQ ID NO:4.	245	51
1071	AAB676 67	Homo sapiens	INCY- Amino acid sequence of human cytokine signal regulator 2.	245	51
1072	gi154189 97	Homo sapiens	capillary morphogenesis protein- 1 mRNA, complete cds.	3015	100
1072	AAB955 05	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18062.	2163	99
1072	gi104357 18	Homo sapiens	cDNA FLJ13645 fis, clone PLACE1011310, weakly similar to MYOSIN HEAVY CHAIN, GIZZARD SMOOTH MUSCLE.	2163	99
1073	gi159850 82	Homo sapiens	unnamed protein product	3158	99
1073	AAU049 58	Homo sapiens	GETH Human Interleukin 17 receptor, IL-17RH4.	3148	97
1073	gi645355 2	Homo sapiens	mRNA; cDNA DKFZp434N1928 (from clone DKFZp434N1928).	3007	100
1074	AAB938 27	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13641.	884	99
1074	AAB236 06	Homo sapiens	ALPH- Human secreted protein SEQ ID NO: 12.	884	99
1074	gi104331 26	Homo sapiens	cDNA FLJ11790 fis, clone HEMBA1006091.	884	99
1075	gi157779 31	Homo sapiens	DGCRK3 gene for G-protein beta subunit like protein, complete cds.	1731	99
1075	gi150823 09	Homo sapiens	clone MGC:19898 IMAGE:4548339, mRNA, complete cds.	1731	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1075	gi133591 65	Homo sapiens	mRNA for KIAA1645 protein, partial cds.	1731	99
1076	gi166059 05	Homo sapiens	unnamed protein product	100	32
1076	gil16111 88	Homo sapiens	Human DNA sequence from clone RP4-688G8 on chromosome 20q11.2-12. Contains the gene for a novel protein similar to ribosomal protein S2 (RPS2), a gene encoding a protein similar to basic protease inhibitor chelonianin, a novel gene, the 3' end of a novel gene, ESTs, STSs, GSSs and a CpG island, complete sequence.	94	32
1076	AAY359 35	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 184.	83	29
1077	gi165542 29	Homo sapiens	cDNA FLJ25436 fis, clone TST08261.	1164	100
1077	gi150824 26	Homo sapiens	Similar to RIKEN cDNA 2810055F11 gene, clone MGC:20203 IMAGE:4684687, mRNA, complete cds.	1156	99
1077	gi128581 55	Mus musculus	putative	1054	89
1078	gi155592 90	Homo sapiens	clone MGC:20275 IMAGE:3842589, mRNA, complete cds.	1917	100
1078	gi156255 64	Homo sapiens	WD40- and FYVE-domain containing protein 2 (WDF2) mRNA, complete cds.	1893	99
1078	gi165542 04	Homo sapiens	cDNA FLJ25420 fis, clone TST03665.	1380	100
1079	AAB927 75	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11256.	3212	99
1079	gi140421 69	Homo sapiens	cDNA FLJ14564 fis, clone NT2RM4000229, weakly similar to Gallus gallus actin filament- associated protein (AFAP-110) mRNA.	3212	99
1079	gi156208 87	Homo sapiens	mRNA for KIAA1914 protein, partial cds.	1702	100
1080	AAG891 72	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 292.	591	100
1080	AAY125 32	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO: 197 from WO 9906553.	512	91
1080	AAB871 73	Homo sapiens	MILL- Human secreted protein TANGO 402 S22T variant, SEQ ID NO:215.	119	44
1081	gi996380 4	Homo sapiens	zinc finger protein ZNF286 (ZNF286) mRNA, complete cds.	574	94
1081	gi140179 65	Homo sapiens	mRNA for KIAA1874 protein, partial cds.	517	91
1081	AAU162 38	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1191.	362	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1082	AAG038 10	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 7891.	841	99
1082	gi186800	Homo sapiens	Human ribosomal protein L12 mRNA, complete cds.	841	99
1082	gi141983 33	Homo sapiens	ribosomal protein L12, clone MGC:9760 IMAGE:3855674, mRNA, complete cds.	841	99
1083	AAY129 02	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO:492.	134	100
1084	gi 186774	Homo sapiens	Human Kruppel related zinc finger protein (HTF10) mRNA, complete cds.	3082	57
1084	gi273935 3	Homo sapiens	DNA from chromosome 19, BAC 33152, complete sequence.	2985	55
1084	AAM797 39	Homo sapiens	HYSE- Human protein SEQ ID NO 3385.	2612	53
1085	AAV481 25_aa1	Homo sapiens	HUMA- Nucleotide sequence encoding clone HMWGS46 of Prohibitin receptor family.	1354	93
1085	ABB1191 3	Homo sapiens	HYSE- Human B-cell receptor associated protein homologue, SEQ ID NO:2283.	1354	93
1085	AAY944 43	Homo sapiens	UNII Human repressor of estrogen repressor activity (REA) protein.	1354	93
1086	AAG723 70	Homo sapiens	YEDA Human OR-like polypeptide query sequence, SEQ ID NO: 2051.	333	100
1086	AAG714 53	Homo sapiens	YEDA Human olfactory receptor polypeptide, SEQ ID NO: 1134.	333	100
1086	AAE0455 6	Homo sapiens	INCY- Human G-protein coupled receptor-12 (GCREC- 12) protein.	315	100
1087	AAG813 23	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:164.	792	100
1087	gi140359 54	Homo sapiens	unnamed protein product	792	100
1087	gi128387 99	Mus musculus	putative	564	76
1088	AAE0969 1	Homo sapiens	HUMA- Human gene 2 encoding novel protein HCOKA10, SEQ ID NO:38.	96	55
1088	AAG761 25	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:6889.	96	55
1088	AAU169 44	Homo sapiens	HUMA- Human novel secreted protein, SEQ ID 185.	96	55
1089	AAY130 37	Homo sapiens	GEST Human secreted protein encoded by 5' EST SEQ ID NO: 51.	187	100
1089	AAY363 95	Homo sapiens	HUMA- Fragment of human secreted protein encoded by gene 5.	79	39
1089	gi130968 04	Mus musculus	Unknown (protein for IMAGE:3586067)	77	40
1090	gi151478	Mus musculus	Spred-2	2098	92

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	77		1		
1090	gi151478 75	Mus musculus	Spred-1	1101	52
1090	AAU174 15	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 980.	1029	98
1091	gi165517 62	Homo sapiens	cDNA FLJ31812 fis, clone NT2RI2009406, moderately similar to Homo sapiens rec mRNA.	804	97
1091	gi668287 3	Homo sapiens	rec mRNA, complete cds.	453	55
1091	gi723061 2	Rattus norvegicus	small rec	451	56
1092	gi122248 85	Homo sapiens	mRNA; cDNA DKFZp76111011 (from clone DKFZp76111011).	241	94
1092	gi388056 0	Caenorhabditis clegans	Similarity to Yeast E1-E2 ATPase (SW:YED1_YEAST), contains similarity to Pfam domain: PF00122 (E1-E2 ATPase), Score=102.4, E- value=2.7e-28, N=4~cDNA EST yk5f9.5 comes from this gene~cDNA EST yk10d12.5 comes from this gene~cDNA EST yk5f9.3 comes from this gene~cDNA EST yk10d12.3 comes from this gene~cDNA EST yk40h11.5 comes from this gene~cDNA EST yk131g11.3 comes from this gene~cDNA EST yk131g11.5 comes from this gene~cDNA EST yk133d6.5 comes from this gene~cDNA EST yk318f2.3 comes from this gene~cDNA EST yk318f2.5 comes from this gene~cDNA EST yk318f2.5 comes from this gene~cDNA EST yk248h3.5 comes from this gene~cDNA EST yk260b8.5 comes from this gene~cDNA EST yk286h5.5 comes from this gene~cDNA EST yk2360f3.5 comes from this gene~cDNA EST yk286h5.5 comes from this gene~cDNA EST yk356g1.5 comes from this gene	135	50
1092	gi165166 58	Homo sapiens	ORF for hypothetical protein.	129	52
1093	AAB409 96	Homo sapiens	CURA- Human ORFX ORF760 polypeptide sequence SEQ ID NO:1520.	349	40
1093	gi165166 58	Homo sapiens	ORF for hypothetical protein.	349	40
1093	gi104369 63	Homo sapiens	cDNA: FLJ20986 fis, clone CAE01156.	349	40
1094	gi169042 08	Homo sapiens	very large G protein-coupled receptor 1b (VLGR1) mRNA, complete cds.	1014	96
1094	gi169042	Mus musculus	very large G protein-coupled	808	78

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	10		receptor 1		
1094	gi120444 71	Homo sapiens	mRNA; cDNA DKFZp761P0710 (from clone DKFZp761P0710); complete cds.	173	27
1095	gi124839 02	Rattus norvegicus	zinc finger protein HIT-10	1545	47
1095	A AB958 62	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18929.	1234	50
1095	gi104367 89	Homo sapiens	cDNA FLJ14345 fis, clone THYRO1001189, weakly similar to ZINC FINGER PROTEIN 91.	1234	50
1096	AAB509 63	Homo sapiens	GETH Human PRO1286 protein.	466	100
1096	AAU124 21	Homo sapiens	GETH Human PRO1286 polypeptide sequence.	466	100
1096	AAU091 79	Homo sapiens	GETH Human PRO1268 polypeptide.	466	100
1097	AAE1202 3	Homo sapiens	INCY- Human G-protein coupled receptor, GCREC-2.	2849	98
1097	AAG681 26	Homo sapiens	FARB Human 7TM-GPCR protein sequence SEQ ID NO:6.	2824	98
1097	gi175125 39	Mus musculus	Unknown (protein for MGC:29266)	2183	73
1098	AAB941 08	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14340.	273	100
1098	AAU045 58	Homo sapiens	GETH Human Stra6 homologue, PRO19578.	273	100
1098	AAU045 57	Homo sapiens	GETH Human Stra6 homologue, PRO10282.	273	100
1099	AAU123 82	Homo sapiens	GETH Human PRO792 polypeptide sequence.	137	32
1099	AAB244 16	Homo sapiens	GETH Human PRO792 protein sequence SEQ ID NO:155.	137	32
1099	AAB240 55	Homo sapiens	GETH Human PRO792 protein sequence SEQ ID NO:31.	137	32
1100	gi633042 2	Homo sapiens	mRNA for KIAA1202 protein, partial cds.	4913	99
1100	gi123140 62	Homo sapiens	Human DNA sequence from clone RP11-119E20 on chromosome Xp11.21-11.23 Contains part of the gene for KIAA 1202 protein, ESTs, STSs and GSSs, complete sequence.	4696	99
1100	gi 154212 01	Homo sapiens	SHAP-A (SHAP) mRNA, partial cds, alternatively spliced.	3845	99
1101	gi108346 07	Homo sapiens	cadherin 20 (CDH20) mRNA, complete cds.	4170	99
1101	gi410175 1	Mus musculus	cadherin 7 precursor	4032 .	96
1101	gi854635	Xenopus laevis	F-cadherin	3251	78
1102	AAY363 10	Homo sapiens	HUMA- Human secreted protein encoded by gene 87.	250	100
1103	gi165514 23	Homo sapiens	cDNA FLJ31547 fis, clone NT2RI2001010, weakly similar to FATTY ACYL-COA	853	98

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			HYDROLASE PRECURSOR, MEDIUM CHAIN (EC 3.1.2.14).		
1103	gi264198 6	Mesocricetus auratus	carboxylesterase precursor	438	50
1103	AAD006 80_aa1	Homo sapiens	INCY- Human Hydrolase protein-5 (HYDRL-5) encoding cDNA.	428	52
1104	AAE0483 6	Homo sapiens	SUGE- Human SGP018 phosphatase polypeptide.	4915	95
1104	gi127188 35	Homo sapiens	unknown mRNA.	3350	99
1104	AAB409 19	Homo sapiens	CURA- Human ORFX ORF683 polypeptide sequence SEQ ID NO:1366.	718	79
1105	gi134926 50	Rattus norvegicus	potassium channel beta subunit KChIP4	1284	99
1105	gi115273 18	Mus musculus	calsenilin-like protein	1281	99
1105	gi140913 36	Homo sapiens	KCHIP4.1 (KCNIP4) mRNA, complete cds, alternatively spliced.	1278	99
1106	AAY131 26	Homo sapiens	GEST Human secreted protein encoded by 5' EST SEQ ID NO: 140.	160	96
1107	gi412659	Cyprinus carpio	complement C3-S	156	29
1107	gi412658	Cyprinus carpio	complement C3-H1	148	26
1107	gi305335	Cavia porcellus	complement C3 protein (GPC3) precursor	146	50
1108	gi112448 73	Homo sapiens	PR-domain-containing protein 16 (PRDM16) mRNA, complete cds.	6646	99
1108	gi126978 95	Homo sapiens	mRNA for KIAA1675 protein, partial cds.	3570	99
1108	gi545408	human, leukemic cell line SKH1, mRNA Mutant, 5938 nt]. [Homo sapiens	AML1-EVI-1=AML1-EVI-1 fusion protein {rearranged translocation}	3181	53
1109	gi107328 15	Homo sapiens	concentrative Na+-nucleoside cotransporter hCNT3 (CNT3) mRNA, complete cds.	3609	100
1109	gi107328 17	Mus musculus	concentrative Na+-nucleoside cotransporter mCNT3	2872	78
1109	gi154893 79	Mus musculus	solute carrier family 28 (sodium- coupled nucleoside transporter), member 3	2859	77
1110	gi178651 50	Plasmodium berghei	cysteine repeat modular protein 3 PbCRM3	97	30
1110	gi665071	Giardia intestinalis	variant-specific surface protein VSP1267-2	96	29
1110	gi861294	Caenorhabditis elegans \	F35D2.4 gene product	94	31
1111	gi795917 7	Homo sapiens	mRNA for KIAA1458 protein, partial cds.	2993	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1111	AAB947 91	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15907.	1037	100
1111	AAU011 01	Homo sapiens	HUMA- Gene 38 Human secreted protein homologous amino acid sequence.	842	99
1112	gi173907 60	Mus musculus	RIKEN cDNA 2610205H19 gene	664	99
1112	gi128482 92	Mus musculus	putative	664	99
1112	gi203072	Rattus sp.	0-44 protein	661	98
1113	gi142503 19	Homo sapiens	clone IMAGE:3448367, mRNA, partial cds.	2143	93
1113	gi145827 73	Homo sapiens	sumo/sentrin-specific protease	2138	93
1113	gi170260 32	Macaca fascicularis	hypothetical protein	2068	89
1114	AAB937 77	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13502.	1064	99
1114	AAM413 87	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 6318.	1064	99
1114	AAM396 01	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 2746.	1064	99
1115	gi152772 40	Homo sapiens	genomic DNA, chromosome 6p21.3, HLA Class I region, section 17/20.	2256	100
1115	gi118754 05	Homo sapiens	HZFw1 protein mRNA, complete cds.	2251	99
1115	gi118754 07	Homo sapiens	HZFw2 protein mRNA, complete cds.	1733	99
1116	AAB957 26	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18602.	1644	99
1116	AAB951 09	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17089.	1644	99
1116	gi140420 78	Homo sapiens	cDNA FLJ14510 fis, clone NT2RM1000623, weakly similar to RIBONUCLEASE INHIBITOR.	1644	99
1117	gi 140093 46	Homo sapiens	nGAP-like protein (AF9q34) mRNA, complete cds.	5475	98
1117	gi152775 25	Rattus norvegicus	DOC2/DAB2 interactive protein	5006	96
1117	gi126980 31	Homo sapiens	mRNA for KIAA1743 protein, partial cds.	3024	98
1118	AAB652 11	Homo sapiens	GETH Human PRO1152 (UNQ582) protein sequence SEQ ID NO:216.	1937	99
1118	AAB688 83	Homo sapiens	INCY- Human RECAP polypeptide, SEQ ID NO: 13.	1937	99
1118	AAU281 83	Homo sapiens	HYSE- Novel human secretory protein, Seq ID No 352.	1937	99
1119	AAG021 97	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 6278.	522	99
1119	AAU172 24	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 789.	485	100
1119	AAU175 97	Homo sapiens	HUMA- Novel signal transduction pathway protein,	449	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			Seq ID 1162.		
1120	gi179636	Homo sapiens	cytoplasmic phosphotyrosyl protein phosphatase (clone type 1) complete cds.	717	88
1120	gi114781 2	Homo sapiens	Human red cell-type low molecular weight acid phosphatase (ACP1) gene, exon 6 and 7, complete cds.	717	88
1120	gi575913 1	Rattus norvegicus	low molecular weight protein tyrosine phosphatase isoform A	647	76
1121	gi767046 6	Mus musculus	unnamed protein product	255	61
1121	gi341381 0	Mus musculus	Bassoon	105	25
1121	gi50715	Mus musculus	myosin heavy chain	103	26
1122	gi104403 35	Homo sapiens	cDNA: FLJ23594 fis, clone LNG14867.	1513	100
1122	gi146028 89	Homo sapiens	clone MGC:13119 IMAGE:4100726, mRNA, complete cds.	702	53
1122	gi142498 27	Homo sapiens	clone MGC:10992 IMAGE:3637387, mRNA, complete cds.	702	53
1123	ABB1120 0	Homo sapiens	HYSE- Human Kupffer cell receptor homologue, SEQ ID NO:1570.	1838	99
1123	gi154890 66	Mus musculus	Kupffer cell c-type lectin receptor	1000	45
1123	gi166936	Mus musculus	Kupffer cell receptor	1000	45
1124	AAY308 47	Homo sapiens	HUMA- Human secreted protein encoded from gene 37.	239	100
1124	gi145960 27	Arabidopsis thaliana	Unknown protein	70	45
1124	gi975895 7	Arabidopsis thaliana	contains similarity to unknown protein~gb AAF64546.1~gene_i d:MRB17.15	70	45
1125	AAY013 90	Homo sapiens	HUMA- Secreted protein encoded by gene 8 clone HTXDJ88.	301	100
1125	gi156399 42	Treponema pallidum] > [Treponema pallidum	dicarboxylate transporter (dctM)	63	38
1126	AAG681 89	Homo sapiens	GENO- Cytosolic thyroid hormone-binding protein SEQ ID NO:105.	152	78
1126	gi35505	Homo sapiens	H.sapiens M gene for M1-type and M2-type pyruvate kinase.	152	78
1126	gi338827	Homo sapiens	Human TCB gene encoding cytosolic thyroid hormone-binding protein, complete cds.	152	78
1127	gi426168 9	Homo sapiens	complement factor B mRNA, complete cds.	3976	97
1127	gi297569	Homo sapiens	H.sapiens mRNA for complement factor B.	3976	97
1127	AAX041	Homo sapiens	UNIW Human Factor B	3972	97

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	25_aa1		encoding cDNA.		
1128	AAB500 12	Homo sapiens	PHAA Wild-type human alpha7 ligand gated ion channel.	1794	100
1128	AAB826 90	Homo sapiens	TEWE- Nicotinic acetylcholine receptor alpha7.	1794	100
1128	AAB240 88	Homo sapiens	GETH Human PRO2145 protein sequence SEQ ID NO:77.	1794	100
1129	gi537329	Homo sapiens	Human (clone pHAIV2-12) alpha-2 collagen type IV (COL4A2) mRNA, 3' end.	3756	99
1129	gi102232 3	Mus musculus	collagen alpha-2(IV) chain	3480	87
1129	gi556299	Mus musculus	alpha-2 type IV collagen	3477	87
1130	gi150114 89	Tetrahymena thermophila	heme maturase	68	29
1131	AAB509 64	Homo sapiens	GETH Human PRO1313 protein.	926	100
1131	AAB472 90	Homo sapiens	GETH PRO1313 polypeptide.	926	100
1131	AAB244 31	Homo sapiens	GETH Human PRO1313 protein sequence SEQ ID NO:216.	926	100
1132	gi128553 07	Mus musculus	putative	2919	89
1132	gi155595 25	Homo sapiens	Similar to RIKEN cDNA 4932416D09 gene, clone IMAGE:4578228, mRNA, partial cds.	2523	99
1132	AAY540 52	Homo sapiens	PHAA An angiogenesis- associated protein which binds plasminogen.	1435	62
1133	AAY130 84	Homo sapiens	GEST Human secreted protein encoded by 5' EST SEQ ID NO: 98.	127	62
1133	gi104404 68	Homo sapiens	mRNA for FLJ00070 protein, partial cds.	75	41
1133	gi455864 0	Homo sapiens	chromosome 19, cosmid R27516, complete sequence.	74	44
1134	AAM802 75	Homo sapiens	HYSE- Human protein SEQ ID NO 3921.	1510	99
1134	AAM792 91	Homo sapiens	HYSÉ- Human protein SEQ ID NO 1953.	1500	99
1134	gi168774 49	Homo sapiens	hypothetical protein MGC20781, clone MGC:21670 IMAGE:3885455, mRNA, complete cds.	1367	100
1135	gi771086 9	Homo sapiens	Human DNA sequence from clone RP11-31M2 on chromosome 9p23-24.3. Contains (part of) the gene for a novel protein similar to the GLI family of zinc finger proteins, STSs, GSSs and two putative CpG islands, complete sequence.	1629	100
1135	AAM254 73	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:988.	861	98
1135	gi144860 69	Drosophila melanogaster	Zn finger transcription factor lame duck	699	63

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
1136	AAR055 62	Homo sapiens	DANA- Laminin -binding protein encoded by insert from J9 lambda gt10 phage.	1327	94
1136	gi307105	Homo sapiens	Human colin carcinoma laminin- binding protein mRNA, complete cds.	1327	94
1136	gi163076 02	Homo sapiens	laminin receptor 1 (67kD, ribosomal protein SA), clone MGC:17122 IMAGE:3446816, mRNA, complete cds.	1327	94
1137	AAB438 84	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1329.	734	98
1137	gi179281	Homo sapiens	ATP synthase beta subunit precursor (ATPSB) gene, complete cds.	734	98
1137	gi167413 73	Homo sapiens	Similar to ATP synthase, H+ transporting, mitochondrial F1 complex, beta polypeptide, clone MGC:5231 IMAGE:2900336, mRNA, complete cds.	734	98
1138	AAG014 68	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5549.	282	98
1138	AAG014 67	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5548.	206	100
1138	AAB438 84	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1329.	206	100
1139	gi179279	Homo sapiens	Human ATP synthase beta subunit gene, exons 8-10.	757	69
1139	gi128456 67	Mus musculus	putative	744	68
1139	gi28940	Homo sapiens	Human mRNA for F1-ATPase beta subunit (F-1 beta).	742	69
1140	AAB438 84	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1329.	1124	89
1140	gi179281	Homo sapiens	ATP synthase beta subunit precursor (ATPSB) gene, complete cds.	1124	89
1140	gi167413 73	Homo sapiens	Similar to ATP synthase, H+ transporting, mitochondrial F1 complex, beta polypeptide, clone MGC:5231 IMAGE:2900336, mRNA, complete cds.	1124	89
1141	AAW540 79	Homo sapiens	TEXA Homo sapiens BARD1 sequence.	4101	100
1141	gi171017 5	Homo sapiens	Human BRCA1-associated RING domain protein (BARD1) mRNA, complete cds.	4101	100
1141	AAW540 81	Homo sapiens	TEXA Homo sapiens BARD1 P553 sequence.	4097	99
1142	AAW540 89	Homo sapiens	TEXA Homo sapiens BARD1 MR658C sequence.	394	100
1142	AAW540 88	Homo sapiens	TEXA Homo sapiens BARD1 MS761N sequence.	394	100
1142	AAW540	Homo sapiens	TEXA Homo sapiens BARDI	394	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	87		MQ564H sequence.		
1143	gi174322 41	Homo sapiens	MSTP027 (MST027) mRNA, complete cds.	730	100
1143	gi160416 88	Homo sapiens	hypothetical protein FLJ21661, clone MGC:16816 IMAGE:3922036, mRNA, complete cds.	730	100
1143	gi140398 31	Homo sapiens	elongation factor G2 (EFG2) mRNA, complete cds; nuclear gene for mitochondrial product.	730	100
1144	AAM407 29	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 5660.	271	98
1144	AAM389 43	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 2088.	271	98
1144	AAY123 25	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO:356.	271	98
1145	gi173903 20	Homo sapiens	clone MGC:9678 IMAGE:3846678, mRNA, complete cds.	872	100
1145	gi120020 02	Homo sapiens	clone 022f05 My030 protein mRNA, complete cds.	872	100
1145	AAY360 68	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 453.	844	97
1146	gi173903 20	Homo sapiens	clone MGC:9678 IMAGE:3846678, mRNA, complete cds.	504	95
1146	gi120020 02	Homo sapiens	clone 022f05 My030 protein mRNA, complete cds.	504	95
1146	AAY360 68	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 453.	495	94
1147	AAB616 17	Homo sapiens	PROT- Human protein HP10688.	1488	100
1147	gi125784 71	Homo sapiens	unnamed protein product	1488	100
1147	AAY027 81	Homo sapiens	HUMA- Human secreted protein.	1146	77
1148	gi165400 2	Homo sapiens	H.sapiens mRNA for Sop2p-like protein.	572	99
1148	gi128050 63	Mus musculus	actin related protein 2/3 complex, subunit 1A (41 kDa)	567	97
1148	gi126672 58	Rattus norvegicus	suppressor of profilin/p41 of actin-related complex 2/3	567	97
1149	AAB952 58	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17435.	3560	100
1149	gi104347 40	Homo sapiens	cDNA FLJ12957 fis, clone NT2RP2005531, weakly similar to PROTEIN 4.1.	3560	100
1149	gi100471 61	Homo sapiens	mRNA for KIAA1548 protein, partial cds.	2487	100
1150	AAR998 44	Homo sapiens	SUME Human natural killer cell, cell surface mol. NKG7.	552	71
1150	AAQ863 84_aa1	Homo sapiens	ASAN/ G-CSF stimulated human myelocytic cell cDNA.	307	65
1150	AAQ985 51_aa1	Homo sapiens	ASAN/ Granulocyte colony stimulating factor (G-CSF)-	307	65

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			inducible myelocyte gene.		
1151	AAM237 81	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1306.	620	89
1151	AAM238 37	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1362.	481	100
1151	AAY647 47	Homo sapiens	GEST Human 5' EST related polypeptide SEQ ID NO:908.	471	98
1152	AAB652 77	Homo sapiens	GETH Human PRO1187 (UNQ601) protein sequence SEQ ID NO:399.	656	100
1152	AAY667 54	Homo sapiens	GETH Membrane-bound protein PRO1187.	656	100
1152	AAB240 77	Homo sapiens	GETH Human PRO1187 protein sequence SEQ ID NO:55.	656	100
1153	gi833175 7	Homo sapiens	X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulindependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein (ALD), plexin-related protein (PLXB3), muscle-specific serine kinase (MSSK), NAD-isocitrate dehydrogenase (IDH), translocon-associated protein delta (TRAP), and LU1 protein (LU1) genes, complete cds; and CCp pseudogene, complete sequence.	1747	92
1153	AAW884 36	Homo sapiens	INCY- Disease associated protein kinase DAPK-5.	1667	88
1153	gi313519 7	Rattus norvegicus	Ca2+/calmodulin-dependent protein kinase I beta 2	1661	87
1154	AAG675 48	Homo sapiens	LEXI- Amino acid sequence of a human transporter protein.	413	98
1154	gi165886 84	Homo sapiens	anion transporter/exchanger-8 (SLC26A8) mRNA, complete cds.	413	98
1154	gi153415 54	Homo sapiens	putative anion transporter (SLC26A8) mRNA, complete cds.	413	98
1155	AAB649 53	Homo sapiens	ROSE/ Human secreted protein sequence encoded by gene 12 SEQ ID NO:131.	995	98
1155	gi128543 24	Mus musculus	putative	781	65
1155	gi152170 75	Homo sapiens	glioma pathogenesis-related protein (RTVP1) mRNA, complete cds.	443	40
1156	AAB262 56	Homo sapiens	UNLO Wild-type human Rac1 protein.	508	100
1156	gi857403 8	Homo sapiens	racl gene.	508	100
1156	gi232620 6	Homo sapiens	Rac3 (RAC3) mRNA, complete cds.	508	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1157	gi104398 53	Homo sapiens	cDNA: FLJ23235 fis, clone CAS04980.	1536	100
1157	AAW855 96	Homo sapiens	MERI Human GABA-A receptor theta subunit.	73	35
1157	gi159782 47	Yersinia pestis	putative membrane protein	73	27
1158	gi104398 53	Homo sapiens	cDNA: FLJ23235 fis, clone CAS04980.	1347	90
1158	AAW855 96	Homo sapiens	MERI Human GABA-A receptor theta subunit.	73	35
1158	gi159782 47	Yersinia pestis	putative membrane protein	73	27
1159	gi119331 49	Homo sapiens	mRNA for 6-phosphofructo-2- kinase heart isoform, complete cds.	2452	100
1159	gi309041 9	Homo sapiens	pfkfb2 gene, exons 1 to 15.	2329	99
1159	gi309042 1	Homo sapiens	mRNA for 6-phosphofructo-2-kinase.	2319	98
1160	gi617778 5	Homo sapiens	mRNA for HKR1, partial cds.	3083	99
1160	gi133254 27	Homo sapiens	clone IMAGE:3928207, mRNA, partial cds.	2388	99
1160	gi487783	Homo sapiens	Human zinc finger protein ZNF133.	1592	54
1161	gi145858 59	Homo sapiens	hypothetical protein SB138	1558	98
1161	AAB946 41	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15526.	1543	100
1161	AAG644 03	Homo sapiens	SHAN- Human paneth cell enhanced expression-like protein.	1543	100
1162	AAY536 41	Homo sapiens	CHIR A bone marrow secreted protein designated BMS42.	2182	. 99
1162	gi966315 3	Homo sapiens	partial mRNA for transport- secretion protein 2.2, (TTS-2.2 gene).	2179	98
1162	gi966315 1	Homo sapiens	partial mRNA for transport- secretion protein 2.1 (TTS-2.1 gene).	2179	98
1163	AAM933 60	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 2919.	3300	100
1163	gi168782 06	Homo sapiens	hypothetical protein DKFZp434J037, clone MGC:29812 IMAGE:5088037, mRNA, complete cds.	3300	100
1163	gi120532 81	Homo sapiens	mRNA; cDNA DKFZp434J037 (from clone DKFZp434J037); complete cds.	3300	100
1164	AAG812 82	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:82.	3032	100
1164	AAU171 02	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 667.	3032	100
1164	gi175299 89	Homo sapiens	oxysterol-binding protein-like protein OSBPL9 (OSBPL9) mRNA, complete cds.	3032	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1165	gi146271 21	Homo sapiens	Human DNA sequence from clone RP5-824F16 on chromosome 20 Contains the 5' end of the ANGPT4 gene for angiopoietin 4, part of the gene for a novel protein similar to mouse thrombospondin type 1 domain protein R-spondin, ESTs, STSs, GSSs and a CpG island, complete sequence.	230	64
1165	gi166053 78	Mus musculus	unnamed protein product	226	42
1165	gi128506 80	Mus musculus	putative	226	42
1166	AAF8417 1 aa1	Homo sapiens	CHUG- Human OATP-B coding sequence.	3573	97
1166	AAZ9240 3_aa1	Homo sapiens	SCHE cDNA encoding human DC-PGT.	3573	97
1166	AAC618 83 aa1	Homo sapiens	CHIR cDNA encoding a human secreted protein.	3573	97
1167	gi30224	Homo sapiens	H.sapiens CRP mRNA for C- reactive protein.	327	100
1167	gi30213	Homo sapiens	H.sapiens mRNA for C-reactive protein.	327	100
1167	gi181068	Homo sapiens	Human C-reactive protein gene, complete cds.	327	100
1168	AAH761 94_aa1	Homo sapiens	MILL- Human seven- transmembrane protein 31945 coding sequence.	3429	99
1168	AAB857 67	Homo sapiens	MILL- Human seven- transmembrane protein 31945 sequence.	3429	99
1168	gi165519 33	Homo sapiens	cDNA FLJ31951 fis, clone NT2RP7007177, weakly similar to Homo sapiens multiple membrane spanning receptor TRC8 mRNA.	3429	99
1169	AAB602 99	Homo sapiens	MILL- Human aminopeptidase 17867.	5048	99
1169	AAE0487 9	Homo sapiens	INCY- Human protease protein- 6 (PRTS-6).	5048	99
1169	gi110659 00	Homo sapiens	aminopeptidase mRNA, complete cds.	5048	99
1170	gi 128441 36	Mus musculus	putative	700	52
1170	AAA999 05_aa1	Homo sapiens	GETH cDNA encoding human protein PRO846.	662	94
1170	AAB653 00	Homo sapiens	GETH Human PRO846 protein sequence SEQ ID NO:517.	662	94
1171	gi126539 43	Homo sapiens	clone MGC:2742 IMAGE:2822914, mRNA, complete cds.	3104	100
1171	AAG012 36	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5317.	522	94
1171	gi130438 7	Saccharomyces cerevisiae var. diastaticus	glucoamylase	196	22

SEQ 1D	Hit ID	Speicles	Description	S score	Percent identity
1172	gi134304 08	Homo sapiens	BTBD2 protein mRNA, complete cds.	2705	99
1172	gi170260 62	Mus musculus	glucose signal repressing protein	1946	77
1172	gi134304 06	Homo sapiens	BTBD1 protein mRNA, complete cds.	1937	76
1173	gi172261 21	Homo sapiens	F-box protein (FBG4) mRNA, complete cds.	1503	100
1173	gi165539 18	Homo sapiens	cDNA FLJ25205 fis, clone REC05844, highly similar to Mus musculus F-box protein FBX17 mRNA.	1503	100
1173	gi152145 27	Homo sapiens	Similar to f-box only protein 17, clone MGC:9379 IMAGE:3864760, mRNA, complete cds.	1503	100
1174	AAB883 73	Homo sapiens	HELI- Human membrane or secretory protein clone PSEC0109.	2158	100
1174	AAB932 15	Homo sapiens	HELI- Human protein sequence SEQ ID NO:12194.	2158	100
1174	AAB931 42	Homo sapiens	HÉLI- Human protein sequence SEQ ID NO:12045.	2158	100
1175	AAB883 73	Homo sapiens	HELI- Human membrane or secretory protein clone PSEC0109.	3646	95
1175	AAB932 15	Homo sapiens	HELI- Human protein sequence SEQ ID NO:12194.	3646	95
1175	gi140425 71	Homo sapiens	cDNA FLJ14791 fis, clone NT2RP4001064, weakly similar to SYNAPTONEMAL COMPLEX PROTEIN SC65.	3646	95
1176	AAB363 92	Homo sapiens	CHUG- Human tumour suppressor Gros1-S protein SEQ ID NO:4.	3861	99
1176	gi111276 38	Homo sapiens	GROS1-L protein mRNA, complete cds.	3861	99
1176	AAB883 73	Homo sapiens	HELI- Human membrane or secretory protein clone PSEC0109.	3847	99
1177	gi104385 39	Homo sapiens	cDNA: FLJ22233 fis, clone HRC02016.	2015	100
1177	AAE0489 2	Homo sapiens	INCY- Human transporter and ion channel-5 (TRICH-5) protein.	2009	99
1177	gi139256 61	Mus musculus	sodium/calcium exchanger protein	1708	84
1178	AAB651 92	Homo sapiens	GETH Human PRO839 (UNQ472) protein sequence SEQ ID NO:167.	366	100
1178	AAG814 32	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:382.	366	100
1178	AAY666 69_	Homo sapiens	GETH Membrane-bound protein PRO839.	366	100
1179	gi599683	Bos taurus	Cleavage and Polyadenylation specificity factor (CPSF) 100kD subunit	4034	98

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1179	gi154890 17	Mus musculus	cleavage and polyadenylation specific factor 2, 100kD subunit	3993	97
1179	gi233103 6	Mus musculus	cleavage and polyadenylation specificity factor	3993	97
1180	AAZ3464 8_aal	Homo sapiens	ZYMO Human growth factor zalpha5 cDNA.	2182	91
1180	AAZ4585 2_aal	Homo sapiens	COMP- Human liver angiopoietin-like growth factor DNA sequence.	2182	91
1180	AAA497 16_aa1	Homo sapiens	GETH Human PRO179 cDNA clone DNA16451-1078.	2182	91
1181	AAH231 83_881	Homo sapiens	ISIS- Human macrophage migration inhibitory factor encoding DNA.	564	94
1181	AAB603 25	Homo sapiens	KIRI Human wild-type glycosylation-inhibiting factor (GIF).	564	94
1181	AAB853 43	Homo sapiens	ISIS- Human macrophage migration inhibitory factor.	564	94
1182	gi726393 8	Homo sapiens	mRNA for sodium-glucose cotransporter (SGLT2 gene).	3408	100
1182	gi567946 4	Homo sapiens	Human DNA sequence from clone RP1-90G24 on chromosome 22 Contains the RFPL2 gene for RET finger protein-like 2, a Immunoglobulin Lambda Light Chain C region (IGLC) pseudogene, the gene for SAAT1 (low affinity sodium glucosecotransporter (sodium:solute symporter family)) and a Cleavage and Polyadenylation Specific Factor CPSF 160 kD subunit pseudogene. Contains ESTs, GSSs and three putative CpG islands, complete sequence.	3408	100
1182	AAY312 21	Homo sapiens	KOEP/ Human SAAT1 protein.	3390	99
1183	gi136233 01	Homo sapiens	Similar to Zink transporter 2, clone MGC:11303 IMAGE:3948165, mRNA, complete cds.	1659	100
1183	gi125637 8	Rattus norvegicus	zinc transporter ZnT-2	1186	67
1183	gi176337 4	Mus musculus	ZnT-3	721	44
1184	AAB926 36	Homo sapiens	HELI- Human protein sequence SEQ ID NO:10951.	1480	81
1184	gi702218 5	Homo sapiens	cDNA FLJ10260 fis, clone HEMBB1000973, moderately similar to Mus musculus schlafen3 mRNA.	1480	81
1184	AAM403 57	Homo sapiens	HÝSE- Human polypeptide SEQ ID NO 3502.	1479	81
1185	AAB953 51	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17641.	3148	99

SEQ	Hit ID	Speicies	Description	S score	Percent
ID					identity
1185	gi104350 75	Homo sapiens	cDNA FLJ13170 fis, clone NT2RP3003809, weakly similar to SAV PROTEIN.	3148	99
1185	gi126543 21	Homo sapiens	clone MGC:5347 IMAGE:2985725, mRNA, complete cds.	3106	99
1186	gi105675 90	Homo sapiens	sodium bicarbonate cotransporter-like protein mRNA, partial cds.	5645	100
1186	gi134477 47	Homo sapiens	sodium bicarbonate cotransporter NBC4a (NBC4) mRNA, complete cds.	5486	99
1186	gi154195 75	Homo sapiens	sodium bicarbonate cotransporter NBC4c (NBC4) mRNA, complete cds, alternatively spliced.	5382	98
1187	gi101858 24	Homo sapiens	SEBOX (SEBOX) gene, complete cds.	1209	100
1187	gi100921 60	Mus musculus	SEBOX	581	63
1187	gi101858 26	Rattus norvegicus	SEBOX	565	63
1188	AAM435 40	Homo sapiens	HUMA- Human polypeptide SEQ ID NO 218.	246	94
1188	AAM404 68	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 5399.	246	94
1188	AAM386 82	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 1827.	246	94
1189	gi104381 35	Homo sapiens	cDNA: FLJ21924 fis, clone HEP04086.	3703	99
1189	AAM680 38	Homo sapiens	MOLE- Human bone marrow expressed probe encoded protein SEQ ID NO: 28344.	700	100
1189	AAM556 56	Homo sapiens	MOLE- Human brain expressed single exon probe encoded protein SEQ ID NO: 27761.	700	100
1190	gi143885 55	Macaca fascicularis	hypothetical protein	1240	96
1190	AAG932 58	Homo sapiens	NISC- Human protein HP10582.	979	100
1190	gi128548 23	Mus musculus	putative	882	72
1191	AAB945 45	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15296.	2344	99
1191	gi104352 28	Homo sapiens	cDNA FLJ13273 fis, clone OVARC1001010.	2344	99
1191	gi128604 75	Mus musculus	putative	1811	83
1192	gi104404 42	Homo sapiens	mRNA for FLJ00057 protein, partial cds.	3033	99
1192	gi120823 03	Mus musculus	DNA helicase B	1697	61
1192	gi263521 1	Bacillus subtilis	similar to conjugation transfer protein	114	22
1193	AAE1044 5	Homo sapiens	BIOJ Human transmembrane protein (TMP).	2286	100
1193	AAY862	Homo sapiens	HUMA- Human secreted protein	1889	85

SEQ	Hit ID	Speicies	Description	S score	Percent
ID	20		THE DOCUMENT OF THE PARTY OF TH	 	identity
1193	30 AAW680	77	HKFBC53, SEQ ID NO:145.	700	
	02	Homo sapiens	HUMA- Fragment of human secreted protein encoded by gene 69.	798	96
1194	gi175117 29	Homo sapiens	hypothetical protein FLJ12598, clone MGC:31807 IMAGE:4552964, mRNA, complete cds.	1180	001
1194	AAB941 62	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14456.	1173	99
1194	gi104341 83	Homo sapiens	cDNA FLJ12598 fis, clone NT2RM4001384.	1173	99
1195	gi724306 9	Homo sapiens	mRNA for KIAA1344 protein, partial cds.	4137	100
1195	AAB940 73	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14262.	1839	99
1195	gi104340 25	Homo sapiens	cDNA FLJ12501 fis, clone NT2RM2001681.	1839	99
1196	AAB088 94	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 4 SEQ ID NO:51.	235	67
1196	gi335913	Vesicular stomatitis virus	glycoprotein	71	30
1196	gi296009 3	Mycobacterium tuberculosis H37Rv	hypothetical protein Rv3669	71	30
1197	AAM943 12	Homo sapiens	HUMA- Human reproductive system related antigen SEQ ID NO: 2970.	1211	98
1197	gi843939 6	HERV-H/env62	envelope protein	763	36
1197	gi495938 2	Homo sapiens	human endogenous retrovirus HERV-H19 pol protein (pol) gene, partial cds; env protein (env) gene, complete cds; and 3' LTR, complete sequence.	757	36
1198	gi140173 81	Homo sapiens	tumor endothelial marker 8 precursor (TEM8) mRNA, complete cds.	1512	100
1198	gi104379 39	Homo sapiens	cDNA: FLJ21776 fis, clone HEP00171.	1512	100
1198	gi159875 05	Mus musculus	tumor endothelial marker 8 precursor	1484	97
1199	AAB652 70	Homo sapiens	GETH Human PRO1158 (UNQ588) protein sequence SEQ ID NO:375.	609	100
1199	AAB875 59	Homo sapiens	GETH Human PRO1158.	609	100
1199	AAY667 47	Homo sapiens	GETH Membrane-bound protein PRO1158.	609	100
1200	AAM413 80	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 6311.	844	87
1200	AAY017 85	Homo sapiens	INCY- Human ubiquitin- conjugating enzyme HUBI-1.	818	87
1200	AAY253 41	Homo sapiens	PROS- Human NCE-2 protein.	818	87
1201	AAW748	Homo sapiens	HUMA- Human secreted protein	197	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	99		encoded by gene 172 clone HODCW06.		
1201	gi137944 93	Guillardia theta	hypothetical protein	67	36
1202	AAS0794 0_aa1	Homo sapiens	AREN- Human cDNA encoding G-protein coupled receptor, hRUP13.	2087	92
1202	AAS1258 3_aa1	Homo sapiens	FARB DNA encoding human serotonin-like G protein-coupled receptor (5-HT-GPCR).	2087	92
1202	AAD195 79_aa1	Homo sapiens	INCY- Human G-protein coupled receptor, GCREC-3 cDNA.	2087	92
1203	AAS0794 0_aa1	Homo sapiens	AREN- Human cDNA encoding G-protein coupled receptor, hRUP13.	2318	100
1203	AAS1258 3_aa1	Homo sapiens	FARB DNA encoding human serotonin-like G protein-coupled receptor (5-HT-GPCR).	2318	100
1203	AAD195 79_aa1	Homo sapiens	INCY- Human G-protein coupled receptor, GCREC-3 cDNA.	2318	100
1204	AAM936 12	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3436.	3475	100
1204	gi140431	Homo sapiens	Similar to ubiquitin associated and SH3 domain containing, A, clone MGC:15437 IMAGE:2958242, mRNA, complete cds.	3412	100
1204	gi163041 76	Homo sapiens	nm23-phosphorylated unknown substrate mRNA, complete cds.	2759	100
1205	AAB014 24	Homo sapiens	MILL- Human TANGO 213.	1264	100
1205	AAM257 35	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1250.	1066	100
1205	AAY762 67	Homo sapiens	HUMA- Fragment of human secreted protein encoded by gene 11.	1066	100
1206	AAW749 39	Homo sapiens	HUMA- Human secreted protein encoded by gene 49 clone HAGBI17.	211	100
1207	gi151265 59	Mus musculus	Similar to Cd63 antigen	504	99
1207	gi141980 88	Mus musculus	Cd63 antigen	504	99
1207	gi541060 5	Mus musculus	tetraspanin membrane protein CD63	504	99
1208	AAB951 48	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17173.	3590	99
1208	gi119905 93	Homo sapiens	organic anion transporter polypeptide-related protein 4 (OATPRP4) mRNA, complete cds.	3515	99
1208	AAB491 47	Homo sapiens	BRIM Human organic anion transport protein RP4 protein.	3503	99
1209	AAB733 81	Homo sapiens	NANF- Human gas vesicle protein homologue hGvpT-b.	1866	100

SEQ	Hit ID	Speicies	Description	S score	Percent
1209	gi120055	Homo sapiens	HT025 mRNA, complete cds.	1866	identity 100
	09				
1209	gi104402 36	Homo sapiens	cDNA: FLJ23518 fis, clone LNG04878.	1600	100
1210	gi120530 21	Homo sapiens	mRNA; cDNA DKFZp434L0714 (from clone DKFZp434L0714); complete cds.	4230	99
1210	AAG643 76	Homo sapiens	BIOD- Human II aminoacyl- tRNA synthetase 75.	3517	99
1210	gi104399 91	Homo sapiens	cDNA: FLJ23339 fis, clone HEP13401.	3010	99
1211	AAB589 41	Homo sapiens	HUMA- Breast and ovarian cancer associated antigen protein sequence SEQ ID 649.	1188	99
1211	gi120059	Homo sapiens	CDA016 mRNA, complete cds.	1176	98
1211	AAB366 15	Homo sapiens	INCY- Human FLEXHT-37 protein sequence SEQ ID NO:37.	862	98
1212	gi104371 94	Homo sapiens	cDNA: FLJ21148 fis, clone CAS09413.	2238	96
1212	gi128456 48	Mus musculus	putative	1808	80
1212	gi122603 3	Saccharomyces cerevisiae	unknown	259	25
1213	gi104371 94	Homo sapiens	cDNA: FLJ21148 fis, clone CAS09413.	2203	91
1213	gi128456 48	Mus musculus	putative	1774	76
1213	gi122603 3	Saccharomyces cerevisiae	unknown	249	25
1214	gi663099 2	Danio rerio	NCC receptor protein 1	418	42
1214	gi127116 29	Oreochromis niloticus	nonspecific cytotoxic cell receptor protein	389	41
1214	gi663099 8	Ictalurus punctatus	NCC receptor protein 1	361	40
1215	AAC843 82 aal	Homo sapiens	MILL- Human TANGO 209 polypeptide coding sequence.	2430	100
1215	AAS1457 6_aa1	Homo sapiens	ELIL Human cDNA encoding cysteine-rich secreted protein hCRSP1.	2430	100
1215	AAB481 07	Homo sapiens	MILL- Human TANGO 209 polypeptide.	2430	100
1216	ABB1188	Homo sapiens	HYSE- Human lipocortin homologue, SEQ ID NO:2250.	1091	99
1216	AAB434 43	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:888.	1071	99
1216	AAR224 02	Homo sapiens	BIOS Human lipocortin.	1050	99
1217	ABB1188	Homo sapiens	HYSE- Human lipocortin homologue, SEQ ID NO:2250.	1511	100
1217	AAB434 43	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:888.	1511	100

SEQ	Hit ID	Speicles	Description	S score	Percent
ID					identity
1217	AAY084 12	Homo sapiens	UYMC- Human p-40/annexin I protein.	1511	100
1218	ABB1188 0	Homo sapiens	HYSE- Human lipocortin homologue, SEQ ID NO:2250.	967	100
1218	AAB434 43	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:888.	967 ·	100
1218	AAY084 12	Homo sapiens	UYMC- Human p-40/annexin I protein.	967	100
1219	gi410698 4	Homo sapiens	Human DNA from chromosome 19-specific cosmid R30923, genomic sequence, complete sequence.	2992	100
1219	AAB427 92	Homo sapiens	CURA- Human ORFX ORF2556 polypeptide sequence SEQ ID NO:5112.	2967	99
1219	gi146031 76	Homo sapiens	Similar to RIKEN cDNA 2410153K17 gene, clone MGC:19595 IMAGE:3840843, mRNA, complete cds.	2432	1,00
1220	AAG814 43	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:404.	492	100
1220	gi150802 20	Homo sapiens	Similar to hypothetical protein, MGC:7764, clone MGC:20548 IMAGE:3607345, mRNA, complete cds.	492	100
1220	gi140361 94	Homo sapiens	unnamed protein product	492	100
1221	AAE0518 3	Homo sapiens	INCY- Human drug metabolising enzyme (DME-14) protein.	2258	100
1221	AAY913 48	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 3 SEQ ID NO:69.	2258	100
1221	gi118545 2	Homo sapiens	Human cytochrome P450 monooxygenase CYP2J2 mRNA, complete cds.	932	44
1222	AAE0518 3	Homo sapiens	INCY- Human drug metabolising enzyme (DME-14) protein.	1344	100
1222	AAY913 48	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 3 SEQ ID NO:69.	1344	100
1222	gi118545 2	Homo sapiens	Human cytochrome P450 monooxygenase CYP2J2 mRNA, complete cds.	548	44
1223	AAW346 18	Homo sapiens	IMUT- Human C3 protein mutant DV-7N.	597	34
1223	AAW346 17	Homo sapiens	IMUT- Human C3 protein mutant DV-6.	597	34
1223	AAW346 16	Homo sapiens	IMUT- Human C3 protein mutant CV-5.	597	34
1224	gi173900 00	Homo sapiens	Similar to RIKEN cDNA 5730455013 gene, clone MGC:24718 IMAGE:4278022, mRNA, complete cds.	1693	100
1224	AAB417	Homo sapiens	CURA- Human ORFX	1166	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	53		ORF1517 polypeptide sequence SEQ ID NO:3034.		
1224	gi128570 19	Mus musculus	putative	1036	87
1225	AAG009 03	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 4984.	294	100
1225	gi339697	Homo sapiens	thymosin beta-10 gene, 3'end.	169	97
1225	gi339687	Homo sapiens	Human thymosin beta-10 mRNA, complete cds.	169	97
1226	AAY913 86	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 41 SEQ ID NO:107.	558	100
1226	gi999289 3	Homo sapiens	phosphoinositol 3-phosphate binding protein-I (PEPP1) mRNA, complete cds.	75	40
1226	gi101907 44	Homo sapiens] > [Homo sapiens	pleckstrin homology domain- containing, family A (phosphoinositide binding specific) member 4; phosphoinositol 3-phosphate binding protein-1	75	40
1227	AAY600 08	Homo sapiens	META- Human endometrium tumour EST encoded protein 68.	2286	100
1227	AAW747 97	Homo sapiens	HUMA- Human secreted protein encoded by gene 68 clone HKIXR69.	2286	100
1227	gi576230 5	Mus musculus	COP1 protein	2268	99
1228	AAG892 92	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 412.	119	71
1228	AAM937 24	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3677.	119	71
1228	gi128036 69	Homo sapiens	CDK4-binding protein p34SEI1, clone MGC:3465 IMAGE:3613213, mRNA, complete cds.	119	71
1229	AAY913 70	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 25 SEQ ID NO:91.	293	100
1230	gi120045 83	Mus musculus	unknown	2566	81
1230	gi 128365 62	Mus musculus	putative	2541	80
1230	AAB418 60	Homo sapiens	CURA- Human ORFX ORF1624 polypeptide sequence SEQ ID NO:3248.	1401	100
1231	AAG760 80	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:6844.	300	84
1231	AAG013 47	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5428.	300	84
1231	AAG013 46	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5427.	300	84
1232	ABB1165 5	Homo sapiens	HYSE- Human secreted protein homologue, SEQ ID NO:2025.	2233	99
1232	gi 159297 48	Mus musculus	Unknown (protein for IMAGE:4222865)	1826	81

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1232	gi128527	Mus musculus	putative	1815	81
1233	AAB279 77	Homo sapiens	HUMA- Human secreted protein BLAST search protein SEQ ID NO: 131.	290	96
1233	AAY134 58	Homo sapiens	UYRQ Amino acid sequence of human Fe65.	290	96
1233	gi392493 6	Homo sapiens	Fe65 protein gene, exons 3 through 14 and partial cds.	290	96
1234	AAO077 68	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 21660.	294	100
1234	AAY027 75	Homo sapiens	HUMA- Human secreted protein encoded by gene 12 clone HFTCU19.	288	98
1234	gi729722 6	Drosophila melanogaster	CG4497 gene product	67	42
1235	AAB942 20	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14581.	3191	99
1235	gi104342 88	Homo sapiens	cDNA FLJ12661 fis, clone NT2RM4002189, weakly similar to GLUCOAMYLASE S1/S2 PRECURSOR (EC 3.2.1.3).	3191	99
1235	gi140183 79	Schizosaccharom yces pombe	hypothetical protein; sequence orphan; low similarity to glycoamylases and other cell surface proteins; contains ~250- 270 copies of a 13 AA repeat, NSSTPITSSSIL	355	26
1236	AAU035 93	Homo sapiens	INCY- Human DNA modification protein, DNAMP- 8.	4977	98
1236	gi606313 7	Mus musculus	F-box protein FBX18	4406	92
1236	AAB942 00	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14538.	4039	99
1237	AAB013 95	Homo sapiens	INCY- Neuron-associated protein.	1507	95
1237	AAU205 29	Homo sapiens	HUMA- Human secreted protein, Seq ID No 521.	1156	86
1237	gi128430 76	Mus musculus	putative	644	95
1238	gi165508 22	Homo sapiens	cDNA FLJ31400 fis, clone NT2NE1000185, weakly similar to UDP-N- ACETYLGLUCOSAMINE PEPTIDE N- ACETYLGLUCOSAMINYLTR ANSFERASE 110 KDA SUBUNIT (EC 2.4.1).	1999	96
1238	gi136041 67	Homo sapiens	ARG99 mRNA, complete cds.	781	100
1238	gi672116 1	Arabidopsis thaliana	putative O-linked GlcNAc transferase	372	27
1239	AAY734 14	Homo sapiens	GEMY Human secreted protein clone yb101_1 protein sequence SEQ ID NO:50.	472	100
1239	gi719065	Chlamydia	conserved hypothetical protein	70	28

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	6	muridarum			
1239	gi332875 9	Chlamydia trachomatis	hypothetical protein	68	28
1240	AAW886 15	Homo sapiens	HUMA- Secreted protein encoded by gene 82 clone HNGBT31.	525	97
1240	AAY840 40	Homo sapiens	USGO Amino acid sequence of cancer associated polypeptide CH1-9a11-2.	71	30
1240	gi148609 75	human herpesvirus 2	DNA polymerase	70	36
1241	gil11214 83	Homo sapiens	mRNA for calsyntenin-2 (CS2 gene).	5080	100
1241	gi111215 06	Mus musculus	calsyntenin-2	4733	94
1241	gi115582 48	Gallus gallus	calsyntenin-1 protein	2962	57
1242	AAM933 76	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 2951.	1034	100
1242	AAW781 51	Homo sapiens	HUMA- Human secreted protein encoded by gene 26 clone HT3BE24.	1034	100
1242	AAY298 65	Homo sapiens	GEMY Human secreted protein clone pe213_1.	1034	100
1243	gi104395 94	Homo sapiens	cDNA: FLJ23033 fis, clone LNG02005.	2982	99
1243	AAB413 96	Homo sapiens	CURA- Human ORFX ORF1160 polypeptide sequence SEQ ID NO:2320.	2486	100
1243	gi128530 18	Mus musculus	putative	2002	88
1244	AAY122 52	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO: 565.	321	92
1244	AAU163 32	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1285.	320	92
1244	AAU158 73	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 826.	320	92
1245	AAE0487 8	Homo sapiens	INCY- Human protease protein- 5 (PRTS-5).	1542	100
1245	gi135436 81	Homo sapiens	clone MGC:14793 IMAGE:4047601, mRNA, complete cds.	1524	99
1245	AAB475 27	Homo sapiens	MILL- Ubiquitin hydrolase-like protein - long form.	1499	100
1246	gi140435 23	Homo sapiens	clone IMAGE:4098694, mRNA, partial cds.	1991	97
1246	gi120608 22	Homo sapiens	serologically defined breast cancer antigen NY-BR-16 mRNA, complete cds.	1991	97
1246	gi129638 69	Mus musculus	gene trap ankyrin repeat containing protein	1980	96
1247	AAB543 57	Homo sapiens	HUMA- Human pancreatic cancer antigen protein sequence SEQ ID NO:809.	301	100
1247	AAY486 00	Homo sapiens	META- Human breast tumour- associated protein 61.	285	98
1247	gi156129	Bacillus	BH0396~unknown conserved	63	32

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	59	halodurans] > [Bacillus halodurans	protein		
1248	AAM405 66	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 5497.	379	46
1248	AAM387 80	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 1925.	379	46
1248	gi653960 6	Homo sapiens	metastasis suppressor protein mRNA, complete cds.	379	46
1249	gi139925 24	Homo sapiens	mRNA for type II alpha phosphatidylinositol 4-kinase gene.	2546	100
1249	gi131119 89	Homo sapiens	Similar to hypothetical protein FLJ11105, clone MGC:4395 IMAGE:2905670, mRNA, complete cds.	2546	100
1249	gi136607 55	Rattus norvegicus	55 kDa type II phosphatidylinositol 4-kinase	2409	94
1250	AAB954 25	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17833.	4871	100
1250	gi104354 87	Homo sapiens	cDNA FLJ13465 fis, clone PLACE1003493, weakly similar to ENDOTHELIAL CELL MULTIMERIN PRECURSOR.	4871	100
1250	AAY363 00	Homo sapiens	HUMA- Human secreted protein encoded by gene 77.	2472	98
1251	gi644932 6	Mus musculus	retinoic acid-responsive protein HA1R-62	83	68
1251	gi647869 4	Soybean mosaic virus	P1 protease	67	33
1252	gi124078 29	Homo sapiens	netrin 4 precursor (NTN4) mRNA, complete cds.	3361	99
1252	AAG664 49	Homo sapiens	GEHO Human beta-netrin.	3347	99
1252	gi111200 48	Homo sapiens	beta-netrin mRNA, complete cds.	3347	99
1253	gi168780 83	Homo sapiens	enolase 3, (beta, muscle), clone MGC:29581 IMAGE:4902149, mRNA, complete cds.	558	94
1253	gi34789	Homo sapiens	H.sapiens mRNA for muscle specific enolase (MSE) (EC 4.2.1.11).	555	94
1253	gi31170	Homo sapiens	Human ENO3 mRNA for beta- enolase (EC 4.2.1.11).	551	93
1254	AAY078 95	Homo sapiens	HUMA- Human secreted protein fragment encoded from gene 44.	537	100
1254	gi171320 82	Nostoc sp. PCC 7120	ORF_ID:alr2988~hypothetical protein	69	38
1255	AAB937 52	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13419.	1000	99
1255	gi104327 85	Homo sapiens	cDNA FLJ11515 fis, clone HEMBA1002241, weakly similar to PROLIFERATING- CELL NUCLEOLAR ANTIGEN P120.	1000	99
1255	gi156801 85	Homo sapiens	Similar to RIKEN cDNA 2810405F18 gene, clone	875	99

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
			MGC:22960 IMAGE:4865283, mRNA, complete cds.		
1256	gi141608 80	Homo sapiens	PKCI-1-related HIT protein mRNA, complete cds.	827	100
1256	gi136501 28	Homo sapiens	HIT-17kDa mRNA, complete cds.	827	100
1256	AAM257 39	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1254.	806	94
1257	gi128492 77	Mus musculus	putative	793	93
,	gi642529 5	Caenorhabditis elegans	predicted using Genefinder~contains similarity to Pfam domain: PF00023 (Ank repeat), Score=71.3, E- value=6.5e-18, N=2	200	40
1257	gi433575 6	Arabidopsis thaliana	putative ankyrin	195	44
1258	AAB876 09	Homo sapiens	GETH Human PRO1890.	1307	99
1258	AAB733 09	Homo sapiens	UROG- Human C-type lectin transmembrane antigen PC- LECTIN, SEQ ID NO:2.	1307	99
1258	AAU124 41	Homo sapiens	GETH Human PRO1890 polypeptide sequence.	1307	99
1259	AAY053 68	Homo sapiens	UYPR- Human HCMV inducible gene protein, SEQ ID NO 4.	1682	97
1259	AAY070 36	Homo sapiens	LUDW- Breast cancer associated antigen precursor sequence.	1682	97
1259	gi995603 5	Homo sapiens	clone CDABP0047 mRNA sequence.	1682	97
1260	AAB189 68	Homo sapiens	INCY- Amino acid sequence of a human transmembrane protein.	1132	100
1260	gi155303 13	Homo sapiens	clone MGC:2853 IMAGE:2987806, mRNA, complete cds.	1132	100
1260	gi139375 95	Homo sapiens	Similar to RIKEN cDNA 1810017F10 gene, clone MGC:2583 IMAGE:3140820, mRNA, complete cds.	1132	100
1261	AAB189 68	Homo sapiens	INCY- Amino acid sequence of a human transmembrane protein.	926	85
1261	gi155303 13	Homo sapiens	clone MGC:2853 IMAGE:2987806, mRNA, complete cds.	926	85
1261	gi139375 95	Homo sapiens	Similar to RIKEN cDNA 1810017F10 gene, clone MGC:2583 IMAGE:3140820, mRNA, complete cds.	926	85
1262	AAB944 34	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15054.	1629	100
1262	gi175121 03	Homo sapiens	hypothetical protein FLJ13044, clone MGC:20950 IMAGE:4577143, mRNA, complete cds.	1629	100
1262	gi104348	Homo sapiens	cDNA FLJ13044 fis, clone	1629	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	74		NT2RP3001355, weakly similar to TRICARBOXYLATE TRANSPORT PROTEIN PRECURSOR.		
1263	gi178640	Homo sapiens	Human angiotensinogen mRNA, complete CDS.	2366	96
1263	gi119749 7	Homo sapiens	H.sapiens angiotensinogen gene exon 2 (and joined CDS).	2366	96
1263	AAB673 50	Homo sapiens	UTAH Human angiotensinogen protein.	2363	96
1264	gi240126 1	Homo sapiens	HLA-C gene (HLA-Cw*0701 allele), complete cds.	1099	98
1264	gi152772 17	Homo sapiens	genomic DNA, chromosome 6p21.3, HLA Class I region, section 7/20.	1099	98
1264	gi147819 7	Homo sapiens	H.sapiens mRNA for human leukocyte antigen C alpha chain.	1099	98
1265	gi386775	Homo sapiens	Human MHC class I HLA-B8 chain gene (A1,2; B5,8), complete cds.	1033	92
1265	gi240125 9	Homo sapiens	HLA-B genc (HLA-B*0801 allele), complete cds.	1033	92
1265	gi152772 16	Homo sapiens	genomic DNA, chromosome 6p21.3, HLA Class I region, section 6/20.	1033	92
1266	AAM237 60	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1285.	937	100
1266	gi458664	Homo sapiens	Human MHC class I antigen HLA-B (HLA-B-0704 allele) mRNA, complete cds.	937	100
1266	gi307221	Homo sapiens	Human MHC HLA protein (allele B7) complete cds.	937	100
1267	gi32181	Homo sapiens	H.sapiens HLA-Bw57 gene.	977	88
1267	gi307222	Homo sapiens	Human MHC HLA protein, allele B57, complete cds.	977	88
1267	gi674637 1	Homo sapiens	HLA class I histocompatibility antigen B-57 (HLA-B57) mRNA, complete cds.	971	88
1268	gi149705 74	Homo sapiens	HLA-A gene for MHC class I antigen, allele HLA-A*68011, exons 1-8.	1801	94
1268	gi172403 4	Homo sapiens	Human HLA class I A locus antigen A*68new mRNA, complete cds.	1796	93 ·
1268	gi613877 0	Homo sapiens	HLA-A gene for MHC Class I antigen, A*68 allele, exons 1-8.	1792	93
1269	gi307225	Homo sapiens	Human MHC HLA protein, allele A25, complete cds.	1160	96
1269	gi142503 59	Homo sapiens	clone MGC:17191 1MAGE:4157200, mRNA, complete cds.	1160	96
1269	gi152697 6	Homo sapiens	H.sapiens mRNA for human leucocyte antigen, HLA-A25.	1152	96
1270	gi645336 5	Homo sapiens	mRNA for human leucocyte antigen B (HLA-B gene, B*1501102N allele).	314	88
1270	AAY647	Homo sapiens	GEST Human 5' EST related	148	81

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	49		polypeptide SEQ ID NO:910.		1000000
1270	AAP7015 5	Homo sapiens	BEHW Sequence encoded by genomic DNA encoding human histocompatibilityantigen HLA- B 27.	138	62
1271	gi825674	Homo sapiens	H.sapiens gene encoding HLA- Cw6, exons 1-3.	1120	99
1271	gi297097	Homo sapiens	H.sapiens mRNA for HLA- Cw*0602.	1120	99
1271	gi194448 0	Homo sapiens	mRNA for HLA-Cw*0602, partial cds.	1120	99
1272	gi222589 0	Homo sapiens	Human HLA-A26null allele, complete cds.	977	85
1272	gi487909	Homo sapiens	mRNA for HLA-A11 antigen A11.1, complete cds.	847	94
1272	gi446825 6	Homo sapiens	mRNA for MHC class I antigen, allele A*1103.	847	94
1273	gi860968	Homo sapiens	Human HLA-A1 gene.	1122	100
1273	gi825024 5	Homo sapiens	HLA-A*0101 gene for MHC class I antigen, exons 1-8.	1122	100
1273	gi386893	Homo sapiens	Human MHC class I HLA-A1 chain gene (A1,2; B8,5), complete cds.	1122	100
1274	AAB944 86	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15170.	2982	100
1274	AAM940 18	Homo sapiens	HELI- Human stomach cancer expressed polypeptide SEQ ID NO 106.	2982	100
1274	gi140424 96	Homo sapiens	cDNA FLJ14750 fis, clone NT2RP3002948, weakly similar to RING CANAL PROTEIN.	2982	100
1275	gi120532 77	Homo sapiens	mRNA; cDNA DKFZp434B227 (from clone DKFZp434B227); complete cds.	2242	99
1275	gi 104403 05	Homo sapiens	cDNA: FLJ23571 fis, clone LNG12303.	2124	94
1275	gil16116 03	Macaca fascicularis	hypothetical protein	2064	90
1276	gi891893 2	Mus musculus	unnamed protein product	2826	95
1276	gi632981 2	Homo sapiens	mRNA for KIAA1130 protein, partial cds.	2716	100
1276	AAS1459 5_aa1	Homo sapiens	MILL- Human cDNA encoding a novel glycosyltransferase 33877.	1606	58
1277	AAB906 76	Homo sapiens	GEMY Human BV141_2 protein sequence SEQ ID 28.	400	98
1277	AAW589 85	Homo sapiens	GEMY Homo sapiens adult brain clone BV141_2 encoded protein.	201	100
1277	gi295048 1	Schizosaccharom yces pombe	hypothetical protein	71	34
1278	AAY144 55	Homo sapiens	HUMA- Human secreted protein encoded by gene 45 clone HCFBJ91.	284	100
1279	AAB858 85	Homo sapiens	HELI- Human adenylate kinase 3 (AK3)-like protein.	135	78

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1279	AAB934 87	Homo sapiens	HELI- Human protein sequence SEQ ID NO:12786.	135	78
1279	AAB930 66	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11883.	135	78
1280	AAB652 42	Homo sapiens	GETH Human PRO1291 (UNQ659) protein sequence SEQ ID NO:291.	1378	100
1280	AAB875 55	Homo sapiens	GETH Human PRO1291.	1378	100
1280	AAY667 19	Homo sapiens	GETH Membrane-bound protein PRO1291.	1378	100
1281	AAB956 82	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18481.	1675	96
1281	gi140419 89	Homo sapiens	cDNA FLJ14456 fis, clone HEMBB1001915, moderately similar to UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 64E (EC 3.1.2.15).	1675	96
1281	gi729543 6	Drosophila melanogaster	Ubp64É gene product	892	71
1282	AAW678 41	Homo sapiens	HUMA- Human secreted protein encoded by gene 35 clone HOABG65.	500	100
1282	AAY122 38	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO: 551.	423	100
1282	AAY119 53	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID No: 553.	276	94
1283	AAM259 58	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1473.	484	78
1283	AAW678 69	Homo sapiens	HUMA- Human secreted protein encoded by gene 63 clone HHGDB72.	484	78
1283	AAY022 85	Homo sapiens	GEMY Secreted protein clone k232_2x polypeptide sequence.	467	78
1284	gi29963	Homo sapiens	Human gene for creatine kinase B (EC 2.7.3.2).	162	71
1284	gi180570	Homo sapiens	Human creatine kinase isozyme CK-B gene, exon 8.	162	71
1284	gi180555	Homo sapiens	Human creatine kinase-B mRNA, complete cds.	162	71
1285	gi 128498 20	Mus musculus	putative	1170	71
1285	AAM253 89	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:904.	790	98
1285	AAY249 17	Homo sapiens	INCY- Human phosphatase HPA-2.	550	39
1286	gi128498 20	Mus musculus	putative	1456	85
1286	AAY249 17	Homo sapiens	INCY- Human phosphatase HPA-2.	798	48
1286	gi897982 5	Homo sapiens	Human DNA sequence from clone RP4-776F14 on chromosome 20p12.2-13. Contains the 5' end of the FKBP1A gene for FK506-binding protein 1A (12kD), the	798	48

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			gene for P47 protein, part of a novel member of the PTPNS (protein tyrosine phosphatase, non-receptor type substrate 1) gene family, ESTs, STSs, GSSs and two CpG islands, complete sequence.		
1287	gi317190 8	Homo sapiens	mRNA for DnaJ protein.	659	100
1287	gi160418 37	Homo sapiens	DnaJ (Hsp40) homolog, subfamily A, member 2, clone MGC:9488 IMAGE:3922477, mRNA, complete cds.	659	100
1287	gi152783 95	Homo sapiens	Similar to DnaJ (Hsp40) homolog, subfamily A, member 2, clone MGC:819 IMAGE:3505399, mRNA, complete cds.	659	100
1288	gi157412 21	Homo sapiens	gene overexpressed in astrocytoma mRNA, complete cds.	3391	99
1288	gi 135440 35	Homo sapiens	clone IMAGE:3535476, mRNA, partial cds.	2095	100
1288	gi168781 87	Homo sapiens	Similar to gene overexpressed in astrocytoma, clone MGC:29809 IMAGE:5017710, mRNA, complete cds.	2079	100
1289	AAY927 19	Homo sapiens	GENZ Human polycistin.	20114	99
1289	gi904223	Homo sapiens	polycystic kidney disease I protein (PKDI) mRNA, complete cds.	20114	99
1289	AAW238 30	Homo sapiens	DEKR- Human PKD1 protein.	20111	99
1290	AAY559 65	Homo sapiens	SUGE- Full length human ZC4 protein.	1906	100
1290	AAY559 34	Homo sapiens	SUGE- Human ZC4 protein.	1808	100
1290	gi278017 3	Homo sapiens	Human DNA sequence from PAC 82J11 and cosmid U134E6 on chromosome Xq22. Contains NIK like and Thyroxin-binding globulin precursor (T4-binding globulin, TBG) genes, ESTs and STSs.	1588	95
1291	gi104380 63	Homo sapiens	cDNA: FLJ21868 fis, clone HEP02432.	1605	99
1291	gi152774 43	Mus musculus	Unknown (protein for MGC:19083)	1379	84
1291	AAB429 53	Homo sapiens	CURA- Human ORFX ORF2717 polypeptide sequence SEQ ID NO:5434.	522	100
1292	gi795926 3	Homo sapiens	mRNA for KIAA1501 protein, partial cds.	1824	100
1292	ABB1748 8	Homo sapiens	HUMA- Human nervous system related polypeptide SEQ ID NO 6145.	984	100
1292	AAB979	Homo sapiens	SHAN- Human G-protein	965	57

SEQ	Hit ID	Speicies	Description	S score	Percent identity
	11		activating protein 129 SEQ ID NO:2.		
1293	gi104430 48	Homo sapiens	Human DNA sequence from clone RP11-465L10 on chromosome 20. Contains 10 CpG islands, ESTs, STSs and GSSs. Contains the gene for a novel protein similar to Drosophila CG11399, the gene for a novel C2H2 type zinc finger protein similar to chicken FZF-1, a Ferritin light polypeptide (FTL) pseudogene, the MMP9 gene for matrix metalloproteinase 9 (gelatinase B, 92kD gelatinase, 92kD type IV collagenase) (CLG4B), a novel gene, the SLC12A5 gene for solute carrier family 12, (potassium-chloride transporter) member 5 (KIAA1176) and the 3' end of gene KIAA1637,	3567	90
1293	AAH282	Homo sapiens	complete sequence. PFIZ Nucleotide sequence of	3556	90
	26_aa1		matrix metalloproteinase-9. SMIK Human matrix		
1293	AAB204 91	Homo sapiens	metalloproteinase-9 (MMP-9).	3556	90
1294	AAH282 26 aa1	Homo sapiens	PFIZ Nucleotide sequence of matrix metalloproteinase-9.	2375	100
1294	AAB204 91	Homo sapiens	SMIK Human matrix metalloproteinase-9 (MMP-9).	2375	100
1294	AAB846 11	Homo sapiens	PFIZ Amino acid sequence of matrix metalloproteinase-9.	2375	100
1295	AAG040 88	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 8169.	601	91
1295	gi897761	Homo sapiens	H.sapiens mRNA for protein phosphatase 5.	450	92
1295	gi455863 8	Homo sapiens	chromosome 19, BAC 82621 (CIT-B-139a18), complete sequence.	450	.92
1296	AAY647 86	Homo sapiens	GEST Human 5' EST related polypeptide SEQ ID NO:947.	200	100
1296	gi162640 94	Sinorhizobium meliloti] > [Sinorhizobium meliloti	HYPOTHETICAL PROTEIN	63	35
1297	gi126980 13	Homo sapiens	mRNA for KIAA1734 protein, partial cds.	3889	100
1297	gi104386 94	Homo sapiens	cDNA: FLJ22346 fis, clone HRC06158.	3877	99
1297	AAB943 54	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14875.	2421	99
1298	gi145756 79	Homo sapiens	hemicentin mRNA, complete cds.	10314	89
1298	gi165519 93	Homo sapiens	cDNA FLJ31995 fis, clone NT2RP7009236, weakly similar to BASEMENT MEMBRANE- SPECIFIC HEPARAN	4274	91

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			SULFATE PROTEOGLYCAN CORE PROTEIN PRECURSOR.		
1298	gi 138728 13	Homo sapiens	partial mRNA for fibulin-6 (FIBL-6 gene).	2907	99
1299	gi548084	Rattus norvegicus	olfactory cyclic nucleotide-gated channel	2811	93
1299	gi538129	Rattus norvegicus	cyclic nucleotide gated cation channel	2811	93
1299	gi908824	Bos taurus	alpha subunit of CNG-channel expressed in bovine testis and retinal cone	1576	53
1300	AAB419 63	Homo sapiens	CURA- Human ORFX ORF1727 polypeptide sequence SEQ ID NO:3454.	514	100
1300	gi155297 03	Homo sapiens	importin 9 mRNA, complete cds.	514	100
1300	gi151867 58	Mus musculus	RANBP9 isoform 2	514	100
1301	gi105053 49	Homo sapiens	regulator of G-protein signaling (RGS8) mRNA, complete cds.	926	100
1301	gi173820 46	Homo sapiens	unnamed protein product	926	100
1301	gi266205 7	Rattus norvegicus	RGS8	921	98
1302	AAB953 02	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17538.	1242	100
1302	gi104349 69	Homo sapiens	cDNA FLJ13105 fis, clone NT2RP3002351, weakly similar to Human mRNA for NAD- dependent methylene tetrahydrofolate dehydrogenase cyclohydrolase (EC 1.5.1.15).	1242	100
1302	gi128347 26	Mus musculus	putative	873	94
1303	gi546603	human, tumorous liver, mRNA Partial, 2631 nt]. [Homo sapiens	glutamine synthetase	1787	100
1303	gi175120 38	Homo sapiens	clone MGC:20095 IMAGE:3352740, mRNA, complete cds.	1787	100
1303	gi150801 57	Homo sapiens	glutamate-ammonia ligase (glutamine synthase), clone MGC:20322 IMAGE:4137547, mRNA, complete cds.	1787	100
1304	gi546603	human, tumorous liver, mRNA Partial, 2631 nt]. [Homo sapiens	glutamine synthetase	432	89
1304	gi31833	Homo sapiens	Human mRNA for glutamine synthetase (E.C. 6.3.1.2).	432	89
1304	gi31831	Homo sapiens	Human rearranged mRNA for glutamine synthase.	432	89
1305	gi165517 55	Homo sapiens	cDNA FLJ31807 fis, clone NT2RI2009215, moderately similar to ZINC FINGER	492	54

SEQ ID	Hit ID	Speicies	· Description	S score	Percent identity
			PROTEIN 165.		
1305	AAM416 49	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 6580.	462	51
1305	AAM939 17	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 4075.	462	51
1306	AAU162 46	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1199.	1010	96
1306	gi128328 45	Mus musculus	putative	585	83
1306	AAU162 40	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1193.	342	95
1307	gi979845 2	Homo sapiens	mRNA for putative capacitative calcium channel (trp7 gene).	4470	100
1307	gi532685 4_	Mus musculus	receptor-activated calcium channel	4392	98
1307	gi229590 3	Homo sapiens	Human putative calcium influx channel (htrp3) mRNA, complete cds.	3529	81
1308	gi611460	Homo sapiens	mRNA for stromal antigen 3 (STAG3 gene).	281	74
1308	gi309042 3	Mus musculus	stag3	203	49
1308	gi131951 63	Rattus norvegicus	stromal antigen 3	199	47
1309	gi611460 I	Homo sapiens	mRNA for stromal antigen 3 (STAG3 gene).	295	82
1309	gi309042 3	Mus musculus	stag3	200	55
1309	gi131951 63	Rattus norvegicus	stromal antigen 3	198	54
1310	gi985856 2	Homo sapiens	Rh type B glycoprotein (RHBG) mRNA, complete cds.	2176	99
1310	gi157184 71	Homo sapiens	Rh type B glycoprotein (RHBG) gene, exons 9, and 10 and complete cds.	2176	99
1310	gi143460 06	Pan troglodytes	Rh type B glycoprotein	2161	99
1311	gi724314 9	Homo sapiens	mRNA for KIAA1384 protein, partial cds.	3377	100
1311	gi128576 73	Mus musculus	putative	2817	98
1311	gi724297 3	Homo sapiens	mRNA for KIAA1309 protein, partial cds.	913	33
1312	AAY862 97	Homo sapiens	HUMA- Human secreted protein HLDCE79, SEQ ID NO:212.	530	100
1312	AAY216 23	Homo sapiens	REGC Ligand binding domain of nuclear receptor hGR.	74	32
1312	AAP8091 9	Homo sapiens	SALK Sequence of the primary protein sequence of human glucocorticoidreceptor (hGR).	74	32
1313	gi110226 90	Homo sapiens	ifp1 mRNA for interferon- responsive finger protein 1 long form, complete cds.	4302	99
1313	AAB955 86	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18252.	2612	100
1313	gi140428 69	Homo sapiens	cDNA FLJ14970 fis, clone THYRO1000501, weakly	2612	100

SEQ	Hit ID	Speicies	Description	Sscore	Percent
ID.	 		similar to 52 KD RO PROTEIN.		identity
1314	gi178613	Homo sapiens	lysyl oxidase-like 4 mRNA,	984	93
	72	<u> </u>	complete cds.		
1314	gi166601 31	Homo sapiens	lysyl oxidase-like 4 (LOXL4) mRNA, complete cds.	984	93
1314	gi146694	Homo sapiens	lysyl oxidase-related protein C (LOXC) mRNA, complete cds.	984	93
1315	gi165494	Homo sapiens	cDNA FLJ30273 fis, clone	1612	98
1	49	tionio dapieno	BRACE2002685, moderately		100
{			similar to Homo sapiens		
l	İ		androgen-regulated short-chain	į	ŀ
			dehydrogenase/reductase 1	1	1
	Ĺ		(ARSDR1) mRNA.		<u> </u>
1315	gi128616 68	Mus musculus	putative	1374	84
1315	gi167406	Mus musculus	Similar to RIKEN cDNA	1315	81
L	49		A930033N07 gene		
1316	gi142862	Homo sapiens	Similar to hypothetical protein	1006	100
}	86		FLJ20515, clone MGC:2696		
			IMAGE:2820596, mRNA,		•
1316	AAY530	Homo sapiens	complete cds. GEMY Human secreted protein	990	99
1310	23	Tionio sapiens	clone qf662_3 protein sequence	1 990	99
	1 23		SEQ ID NO:52.		
1316	AAE0483	Homo sapiens	SUGE- Human SGP001	931	95
}	5		phosphatase polypeptide.		
1317	AAN500	Homo sapiens	MITU DNA encoding	771	100
j	69_aa1	-	cardiodilatin in plasmid		
			pHANF48.	<u>[</u>	Ĺ
1317	AAW981	Homo sapiens	CURA- Human atrial natriuretic	771	100
1217	93	77	peptide prohormone.		100
1317	AAP5124	Homo sapiens	BIOT- Sequence of pre-pro- atrial	771	100
ļ	ļ "	ļ	natriuretic/vasodilatorpolypeptid	ļ	1
Į			e (ANVP).		
1318	AAE0618	Homo sapiens	HUMA- Human gene 57	3182	89
	3		encoded secreted protein		"
	i		fragment, SEQ ID NO:245.		
1318	AAY872	Homo sapiens	HUMA- Human secreted protein	3182	89
	06		sequence SEQ ID NO:245.		
1318	AAE0609	Homo sapiens	HUMA- Human gene 57	2906	88
	7		encoded secreted protein		1
1319	AAU089	Homo sapiens	HRACD80, SEQ ID NO:159. MILL- Human G protein-	410	96
1319	95	nomo sapiens	coupled receptor, GPCR, 45449.	410	90
1319	gi122142	Homo sapiens	Human DNA sequence from	410	96
.51,	87	1100 00	clone RP3-402H5 on	1.0	
	1		chromosome 6p12.3-21.1		
			Contains ESTs, STSs and GSSs.		
]	1		Contains the 3' part of a gene for		[
İ			a novel 7 transmembrane		
			receptor of the rhodopsin family		
			and a novel gene, complete		
1319	gi157973	Homo sapiens	sequence. unnamed protein product	410	96
	18				
1320	gi897761	Homo sapiens	H.sapiens mRNA for protein	387	100

SEQ	Hit ID	Speicies	Description	S score	Percent
ID					identity
			phosphatase 5.	ļ	·
1320	gi455863 8	Homo sapiens	chromosome 19, BAC 82621 (CIT-B-139a18), complete sequence.	387	100
1320	gi128050 33	Homo sapiens	protein phosphatase 5, catalytic subunit, clone MGC:5260 IMAGE:3459309, mRNA, complete cds.	387	100
1321	AAB566 13	Homo sapiens	ROSE/ Human prostate cancer antigen protein sequence SEQ ID NO:1191.	1174	100
1321	gi182644	Homo sapiens	Human FK506-binding protein 25 (FKBP25) mRNA, complete cds.	1169	100
1321	gi182626	Homo sapiens	Human rapamycin binding protein (FK506) mRNA, complete cds.	1169	100
1322	gi150426 91	Homo sapiens	sorting nexin 18 (SNX18) mRNA, complete cds.	2895	100
1322	gi155590 64	Mus musculus	ŠNAGI	2440	86
1322	AAW990 23	Homo sapiens	MOUN 17G2 peptide sequence.	1605	95
1323	gi128048 03	Homo sapiens	clone MGC:4499 IMAGE:2964565, mRNA, complete cds.	1266	100
1323	gi126545 15	Homo sapiens	clone MGC:2827 IMAGE:2964565, mRNA, complete cds.	1266	100
1323	AAB543 74	Homo sapiens	HUMA- Human pancreatic cancer antigen protein sequence SEQ ID NO:826.	1261	99
1324	gi119075 99	Homo sapiens	protein kinase HIPK2 mRNA, complete cds.	6242	99
1324	AAB656 61	Homo sapiens	SUGE- Novel protein kinase, SEQ ID NO: 188.	6086	97
1324	gi172253 77	Homo sapiens	homeodomain interacting protein kinase 2 (HIPK2) mRNA, complete cds.	6083	97
1325	AAB656 61	Homo sapiens	SUGE- Novel protein kinase, SEQ ID NO: 188.	6124	99
1325	gi172253 77	Homo sapiens	homeodomain interacting protein kinase 2 (HIPK2) mRNA, complete cds.	6121	99
1325	gil19075 99	Homo sapiens	protein kinase HIPK2 mRNA, complete cds.	6072	97
1326	gi165522 98	Homo sapiens	cDNA FLJ32230 fis, clone PLACE6004464, weakly similar to Human placenta (Diff48) mRNA.	3064	99
1326	gi132742 02	Homo sapiens	Human DNA sequence from clone RP4-530115 on chromosome 20 Contains the 3' end of the PTPN1 gene for protein tyrosine phosphatase, non-receptor type 1 (EC 3.1.3.48), the gene for a novel	2261	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			protein similar to placental protein DIFF40, an RPL36 (60S ribosomal protein L36) pseudogene, a novel gene, two putative novel genes, ESTs,		
			STSs and GSSs, complete sequence.		
1326	gi222471 3	Homo sapiens	Human mRNA for KIAA0386 gene, complete cds.	963	34
1327	AAU121 77	Homo sapiens	GETH Human PRO305 polypeptide sequence.	1472	82
1327	AAY814 87	Homo sapiens	FUJY Human cathepsin L2.	1472	82
1327	AAY023 58	Homo sapiens	ONOY Polypeptide identified by the signal sequence trap method.	1472	82
1328	AAU121 77	Homo sapiens	GETH Human PRO305 polypeptide sequence.	1698	84
1328	AAY814 87	Homo sapiens	FUJY Human cathepsin L2.	1698	84
1328	AAY023 58	Homo sapiens	ONOY Polypeptide identified by the signal sequence trap method.	1698	84
1329	AAY873 29	Homo sapiens	INCY- Human signal peptide containing protein HSPP-106 SEQ ID NO:106.	692	94
1329	gi151454 28	Caenorhabditis elegans	Hypothetical protein Y22D7AL.14	74	23
1329	gi361801 6	Human immunodeficienc y virus type 1	nef	73	35
1330	AAB823 15	Homo sapiens	UYCO Human immunoglobulin receptor isoform IRTA2c.	1120	99
1330	AAB823 14	Homo sapiens	UYCO Human immunoglobulin receptor isoform IRTA2b.	1120	99
1330	AAB823 13	Homo sapiens	UYCO Human immunoglobulin receptor isoform IRTA2a.	1120	99
1331	gi143367 57	Homo sapiens	16p13.3 sequence section 6 of 8.	1178	100
1331	gi134362 69	Homo sapiens	hypothetical protein FLJ20898, clone MGC:10688 IMAGE:3622114, mRNA, complete cds.	1178	100
1331	AAG814 30	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:378.	954	100
1332	gi568955 7	Homo sapiens	mRNA for KIAA1110 protein, partial cds.	3820	99
1332	ABB1171 3	Homo sapiens	HYSE- Human KIAA1110 protein homologue, SEQ ID NO:2083.	3809	99
1332	gi388224 7	Homo sapiens	mRNA for KIAA0763 protein, complete cds.	1587	44
1333	gi133662 77	Homo sapiens	Human DNA sequence from clone RP5-998H6 on chromosome 20q13.1. Contains the gene for the ortholog of rat PB-Cadherin, ESTs, STSs, GSS, two CpG islands and genomic marker D20S17, complete	4283	100

SEQ	Hit ID	Speicies	Description	S score	Percent identity
			sequence.		
1333	gi476057 8	Mus musculus	PB-Cadherin	3918	92
1333	gi139890 6	Rattus norvegicus	long type PB-cadherin	3907	92
1334	gi302304 4	Enterococcus faecalis	orfC	302	45
1334	gi496520	Streptococcus pyogenes	orf iota	271	39
1334	gi129570 24	Enterococcus faecalis	hypothetical prolein	251	38
1335	gi128384 81	Mus musculus	putative	491	71
1335	gi207249 7	Mus musculus	perforatorial protein PERF 15	481	68
1335	gi151952 3	Rattus norvegicus	PERF15 protein	477	68
1336	gi104384 54	Homo sapiens	cDNA: FLJ22171 fis, clone HRC00654.	3750	100
1336	gi104381 50	Homo sapiens	cDNA: FLJ21935 fis, clone HEP04373.	3734	99
1336	gi135295 54	Mus musculus	Similar to hypothetical protein FLJ21935	3203	85
1337	gi128034 45	Homo sapiens	clone MGC:2217 IMAGE:3139026, mRNA, complete cds.	463	100
1337	gi729634	Drosophila melanogaster	CG4186 gene product	201	47
1337	gi529133	Saccharom yees cerevisiae	Yhrl 16wp	113	41
1338	gi104343 52	Homo sapiens	cDNA FLJ12697 fis, clone NT2RP1000522, weakly similar to UBIQUITIN CARBOXYL- TERMINAL HYDROLASE DUB-1 (EC 3.1.2.15).	6400	99
1338	AAB951 46	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17169.	6396	99
1338	AAB746 71	Homo sapiens	INCY- Human protease and protease inhibitor PPIM-4.	4021	99
1339	gi108016 26	Macaca fascicularis	hypothetical protein	1668	98
1339	gi128367 18	Mus musculus	putative	1439	84
1339	gi104383	Homo sapiens	cDNA: FLJ22054 fis, clone HEP09634.	1351	99
1340	gi175120 67	Homo sapiens	hypothetical protein DKFZp434D0421, clone MGC:20807 IMAGE:4330507, mRNA, complete cds.	1903	100
1340	gil40437 17	Homo sapiens	hypothetical protein DKFZp434D0421, clone MGC:14446 IMAGE:4304040, mRNA, complete cds.	1903	100
1340	gi120531 19	Homo sapiens	mRNA; cDNA DKFZp434D0421 (from clone DKFZp434D0421); complete cds.	1903	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1341	AAB087 65	Homo sapiens	INCY- A human leukocyte and blood related protein (LBAP).	716	93
1341	AAM409 91	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 5922.	508	93
1341	AAB747 18	Homo sapiens	INCY- Human membrane associated protein MEMAP-24.	456	96
1342	AAB955 63	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18202.	3214	99
1342	gi104359 04	Homo sapiens	cDNA FLJ13782 fis, clone PLACE4000489, weakly similar to PROTEIN GRAINY-HEAD.	3214	99
1342	gi128327 62	Mus musculus	putative	2094	94
1343	AAG893 36	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 456.	801	100
1343	AAG813 52	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:222.	801	100
1343	AAY914 23	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 11 SEQ ID NO:144.	801	100
1344	AAY949 78	Homo sapiens	GEMY Human secreted protein clone pw337_6 2nd protein sequence SEQ ID NO:238.	444 .	100
1344	gi759453 4	Arabidopsis thaliana	putative protein	79	31
1345	gi430989	Homo sapiens	PAC clone RP4-555L14 from 7q34-q36, complete sequence.	818	100
1345	gi176464 48	Mus musculus	gammaN-crystallin	724 .	83
1345	gi176464 46	Homo sapiens	gammaN-crystallin variant (CRYGN) mRNA, complete cds.	600	100
1346	AAY762 16	Homo sapiens	HUMA- Human secreted protein encoded by gene 93.	225	97
1347	AAY114 47	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID No 269.	210	97
1347	gi761976 9	Streptomyces coelicolor A3(2)	probable LacI-family transcriptional regulatory protein.	66	53
1347	gi755580	Streptomyces lividans	ORF-RDR; Lac! homolog, similar to E. coli Lac repressor, Swiss-Prot Accession Number P03023	66	53
1348	gi173910 52	Homo sapiens	clone MGC:9915 IMAGE:3871205, mRNA, complete cds.	2220	100
1348	AAG741 53	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:4917.	1072	98
1348	gi525318	Haematobia irritans	putative ATPase	937	44
1349	gi173910 52	Homo sapiens	clone MGC:9915 IMAGE:3871205, mRNA, complete cds.	1919	88
1349	AAG741 53	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:4917.	782	76
1349	gi525318	Haematobia	putative ATPase	749	39

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SEQ Hit ID Speicies Description Sscore Percent ID identity irritans 1350 AAB433 Homo sapiens CURA- Human ORFX 1463 99 ORF3079 polypeptide sequence 15 SEQ ID NO:6158. chromosome 14 clones RP11-1350 gi668259 Homo sapiens 1463 99 111016 and RP11-61F4 containing genes for nuclear receptor coactivator NCoA-62 (nuclear receptor coactivator NCoA-62) gene, complete cds; and unknown gene, complete sequence. 1350 AAW 820 GEMY Human foetal brain Homo sapiens 1249 99 secreted protein fh3_6 (alternative sequence). 1351 gi128411 Mus musculus putative 1153 93 45 1351 gi135292 Homo sapiens Similar to RIKEN cDNA 1136 99 1810018M11 gene, clone 12 MGC:12485 IMAGE:3932127, mRNA, complete cds. 1351 AAY962 Homo sapiens UYNY IkappaB kinase (IKK) 1126 98 02 binding protein, Y2H56. 1352 gi151267 Mus musculus Similar to ferritin heavy chain 947 100 88 gi50954 1352 Mus musculus ferrerin H subunit 947 100 1352 gi50952 Mus musculus ferritin heavy subunit (AA 1 -947 100 182) 1353 AAB705 CURA- Human PRO8 protein 2777 98 Homo sapiens sequence SEQ ID NO:16. 38 1353 AAB705 Homo sapiens CURA- Human PRO7 protein 2777 98 sequence SEQ ID NO:14. 37 1353 2777 98 gi131857 Homo sapiens n 1755 can be A, G, C, or T. 25 1354 AAB535 Homo sapiens HUMA- Human colon cancer 110 73 41 antigen protein sequence SEQ ID NO:1081. 1354 AAR729 Homo sapiens GENZ Creatine-kinase subunit 110 73 R gi29963 1354 Human gene for creatine kinase 110 73 Homo sapiens B (EC 2.7.3.2). 1355 gi124074 tripartite motif protein TRIM9 2831 100 Homo sapiens 05 isoform beta (TRIM9) mRNA, complete cds; alternatively spliced. 1355 gi167555 Rattus Spring 2783 97 norvegicus 24 1355 Human mRNA for KIAA0282 gi166580 Homo sapiens 2575 99 gene, partial cds. 1356 98 AAY536 Homo sapiens CHIR A bone marrow secreted 346 protein designated BMS42. 41 gi966315 1356 Homo sapiens partial mRNA for transport-346 98 secretion protein 2.2, (TTS-2.2 gene). partial mRNA for transport-1356 gi966315 Homo sapiens 98 346 secretion protein 2.1 (TTS-2.1

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1357	gi108011 97	Homo sapiens	heparanase-like protein HPA2b mRNA, complete cds.	2785	100
1357	gi151326 69	Homo sapiens	unnamed protein product	2785	100
1357	AAA910 97_aa1	Homo sapiens	INSI- Human heparanase, hnhpl, coding sequence.	2626	88
1358	gi633035 8	Homo sapiens	mRNA for KIAA1193 protein, partial cds.	2885	100
1358	AAU162 16	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1169.	1216	88
1358	AAY158 35	Homo sapiens	PATE/ A human er1 protein.	751	43
1359	AAB749 45	Homo sapiens	YAMA Human ADAM type metal protease MDTS2 protein SEQ ID NO:10.	6065	99
1359	gi114935 89	Homo sapiens	zinc metalloendopeptidase (ADAMTS10) mRNA, partial cds.	5940	99
1359	AAB723 00	Homo sapiens	HIRO/ Human ADAMTS-10 alternative amino acid sequence.	5484	97
1360	gi173842 56	Homo sapiens	partial MUC5AC gene for mucin 5, clone A.	1291	80
1360	gi563375	Homo sapiens	H.sapiens (JER47) MUC5AC mRNA for mucin (partial).	978	91
1360	gi173842 54	Homo sapiens	partial mRNA for mucin 5 (MUC5AC gene).	905	75
1361	AAM243 95_	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1920.	634	100
1361	AAY761 79	Homo sapiens	HUMA- Human secreted protein encoded by gene 56.	634	100
1361	AAB473 27	Homo sapiens	CURA- FCTR4.	74	27
1362	gi150802 64	Homo sapiens	clone MGC:20279 IMAGE:3949150, mRNA, complete cds.	1043	100
1362	gi104390 83	Homo sapiens	cDNA: FLJ22623 fis, clone HSI05687.	1043	100
1362	gi173894 37	Homo sapiens	hypothetical protein FLJ22623, clone MGC:22173 IMAGE:4274089, mRNA, complete cds.	1031	99
1363	AAH787 30_aa1	Homo sapiens	HUMA- Human HIBCJ89 serine/threonine phosphatase cDNA sequence.	1635	99
1363	AAU205 55	Homo sapiens	HUMA- Human secreted protein, Seq ID No 547.	1635	99
1363	AAU206 63	Homo sapiens	HUMA- Human secreted protein, Seg ID No 655.	1635	99
1364	AAB957 00	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18526.	752	100
1364	gi153418 46	Homo sapiens	hypothetical protein FLJ14107, clone MGC:21030 IMAGE:4389733, mRNA, complete cds.	752	100
1364	gi104364 85	Homo sapiens	cDNA FLJ14107 fis, clone MAMMA1001252.	752	100
1365	AAY673	Homo sapiens	GEMY Human secreted protein	367	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	16		BL341_4 amino acid sequence.		
1365	AAY086 25	Homo sapiens	GEMY Human secreted protein BL341_4.	367	100
1365	AAW420 18	Homo sapiens	JACO/ Clone BL341_4 protein.	363	98
1366	AAU197 15	Homo sapiens	HUMA- Human novel extracellular matrix protein, Seq ID No 365.	2225	99
1366	gi613679 8	Mus musculus	synaptotagmin VIdeltaTM2	2150	96
1366	gi613679 6	Mus musculus	synaptotagmin VIdeltaTM1	2150	96
1367	AAU197 15	Homo sapiens	HUMA- Human novel extracellular matrix protein, Seq ID No 365.	2173	97
1367	gi613679 8	Mus musculus	synaptotagmin VIdeltaTM2	2098	94
1367	gi613679 6	Mus musculus	synaptotagmin VIdeltaTM1	2098	94
1368	AAE0517 5	Homo sapiens	INCY- Human drug metabolising enzyme (DME-6) protein.	2614	97
1368	AAU122 25	Homo sapiens	GETH Human PRO4404 polypeptide sequence.	2614	97
1368	gi119330 56	Sus scrofa	cytochrome P450	1305	50
1369	AAW781 35	Homo sapiens	HUMA- Human secreted protein encoded by gene 10 clone HPMGQ80.	385	100
1369	AAO023 10	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 16202.	76	39
1369	AAO087 72	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 22664.	74	35
1370	gi100473 01	Homo sapiens	mRNA for KIAA1613 protein, partial cds.	3532	100
1370	AAB361 71	Homo sapiens	LEXI- Novel human transporter protein SEQ ID NO: 28.	3412	100
1370	AAB361 70	Homo sapiens	LEXI- Novel human transporter protein SEQ ID NO: 26.	3408	99
1371	AAB416 73	Homo sapiens	CURA- Human ORFX ORF1437 polypeptide sequence SEQ ID NO:2874.	1221	96
1371	AAB616 11	Homo sapiens	PROT- Human protein HP03377.	1220	100
1371	AAE0365 6	Homo sapiens	INCY- Human extracellular matrix and cell adhesion molecule-20 (XMAD-20).	1220	100
1372	gi529588 2	Mus musculus	kinesin like protein 9	3618	88
1372	AAB947 68	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15849.	3257	99
1372	gi104359 68	Homo sapiens	cDNA FLJ13832 fis, clone THYRO1000666, highly similar to Mus musculus mRNA for kinesin like protein 9.	3257	99
1373	AAH255 68_aa1	Homo sapiens	CURA- Nucleotide sequence of an interferon omega-1 like	3294	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			protein NOV2.		
1373	AAG675 23	Homo sapiens	SMIK Amino acid sequence of a human secreted polypeptide.	3294	100
1373	AAB844 69	Homo sapiens	CURA- Amino acid sequence of an interferon omega-1 like protein NOV2.	3294	100
1374	gi592399 2	Homo sapiens	Human DNA sequence from clone RP5-1043E3 on chromosome 6p21.1-21.2 Contains part of a novel gene, an transcription factor E2F4 pseudogene, ESTs, STSs and GSSs, complete sequence.	945	99
1374	gi142457 13	Giardia intestinalis	kinesin-like protein 9	543	44
1374	gi150223 94	Leishmania major	possible kinesin-like protein	531	42
1375	AAG747 79	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:5543.	1405	99
1375	gi798126	Homo sapiens	Human DNA sequence from clone RP1-50024 on chromosome 1p35.1-35.3. Contains the 3' end of the gene for a novel protein similar to C. elegans K07B1.7 (Tr:001886), the gene for a novel protein (translation of cDNA NT2RM2001100 (Em:AK001211)), the SFN gene for stratifin (14-3-3 protein sigma), the gene for a novel protein with DHHC zinc finger domain, the gene for a novel protein (translation of cDNA KAT07271 (Em:AK000484)) and the gene for B120 (C1orf4) (ARID DNA binding domain containing protein). Contains ESTs, STSs, GSSs and six putative CpG islands, complete sequence.	1122	67
1375	AAG812 54	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:26.	1118	72
1376	gi805223 7	Homo sapiens	ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene.	5605	100
1376	gi805232 0	Mus musculus	Cegp1 protein	5054	89
1376	AAG675 29	Homo sapiens	SMIK Amino acid sequence of a human secreted polypeptide.	3226	61
1377	gi104370 45	Homo sapiens	cDNA: FLJ21044 fis, clone CAE11659.	1663	100
1377	gi420638 6	Mus musculus	rig-1 protein	1543	72
1377	AAB570 88	Homo sapiens	ROSE/ Human prostate cancer antigen protein sequence SEQ	1518	98

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			ID NO:1666.		
1378	AAY026 97	Homo sapiens	HUMA- Human secreted protein encoded by gene 48 clone HTNBR95.	165	100
1379	AAY733 86	Homo sapiens	INCY- HTRM clone 3279329 protein sequence.	529	100
1379	AAB631 62	Homo sapiens	ROSE/ Human secreted protein sequence encoded by gene 29 SEQ ID NO:88.	363	100
1379	AAB951 24	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17122.	83	32
1380	gi101981 15	Homo sapiens	2P domain potassium channel TREK2 (KCNK10) mRNA, complete cds.	2760	100
1380	gi845290 0	Rattus norvegicus	potassium channel TREK-2	2555	95
1380	gi458479	Mus musculus	TREK-1 K+ channel subunit	1238	64
1381	gi132766 55	Homo sapiens	mRNA; cDNA DKFZp761M0423 (from clone DKFZp761M0423); complete cds.	2626	99
1381	AAE0436	Homo sapiens	INCY- Human kinase (PKIN)-2.	2588	97
1381	gi183616 1	Rattus sp.	Ca2+/calmodulin-dependent protein kinase IV kinase isoform; CaM-kinase kinase alpha	2468	93
1382	gi123827 81	Homo sapiens	OSBP-related protein 4 mRNA, complete cds.	1124	100
1382	gi133592 01	Homo sapiens	mRNA for KIAA1664 protein, partial cds.	1036	100
1382	gi142098 40	Homo sapiens	oxysterol binding protein 2 (OSBP2) gene, complete cds.	919	100
1383	gi128055 53	Mus musculus	Unknown (protein for MGC:7583)	792	99
1383	gi128586 56	Mus musculus	putative	787	98
1383	AAM238 65	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1390.	672	83
1384	gi300292 5	Homo sapiens	T cell receptor beta chain (TCRBV13S1-TCRBJ2S1) mRNA, complete cds.	679	73
1384	gi298250 8	Homo sapiens	mRNA for TCR beta chain, specific for Mage 3/HLA-A2.	667	71
1384	AAM240 51	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1576.	655	100
1385	gi138792 62	Mus musculus	RIKEN cDNA 0610011E17	710	97
1385	gi128503 53	Mus musculus	putative	710	97
1385	AAB429 05	Homo sapiens	CURA- Human ORFX ORF2669 polypeptide sequence SEQ ID NO:5338.	582	79
1386	AAB950 62	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16896.	741	99
1386	AAM241	Homo sapiens	HYSE- Human EST encoded	681	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	27		protein SEQ ID NO: 1652.		
1386	AAY873 28	Homo sapiens	INCY- Human signal peptide containing protein HSPP-105 SEQ ID NO:105.	681	100
1387	AAM235 76	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1101.	691	100
1387	AAB718 99	Homo sapiens	ZYMO Human zalpha48.	306	68
1387	AAE0658 0	Homo sapiens	SAGA Human protein having hydrophobic domain, HP10786.	306	68
1388	AAB718 63	Homo sapiens	MILL- Human h15571 GPCR.	6511	97
1388	gi159874 91	Homo sapiens	tumor endothelial marker 5 precursor (TEM5) mRNA, complete cds.	6511	97
1388	gi159874 99	Mus musculus	tumor endothelial marker 5	5693	85
1389	AAE0135 4	Homo sapiens	HUMA- Human gene 3 encoded secreted protein HOHBL42, SEQ ID NO:76.	3747	99
1389	gi431420	Mus musculus	MPS1 protein	2714	77
1389	gi505204 8	Rattus norvegicus	Mpg-1 protein	2672	75
1390	AAM242 00	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1725.	329	100
1390	AAY195 88	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	329	100
1391	AAG742 49	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:5013.	888	98
1391	gi128351 18	Mus musculus	putative	884	95
1391	gi730176 3	Drosophila melanogaster	CG11900 gene product	497	59
1392	gi128032 69	Homo sapiens	Similar to CG10641 gene product, clone MGC:3052 IMAGE:3343900, mRNA, complete cds.	701	100
1392	gi104419 42	Homo sapiens	clone PP3051 unknown mRNA.	701	100
1392	AAB954 96	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18039.	698	99
1393	AAY125 12	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO:543.	320	98
1394	AAB948 33	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15998.	2735	100
1394	gi104362 42	Homo sapiens	cDNA FLJ13941 fis, clone Y79AA1000850.	2735	100
1394	ÁAB428 18	Homo sapiens	CURA- Human ORFX ORF2582 polypeptide sequence SEQ ID NO:5164.	1115	99
1395	AAB948 33	I-lomo sapiens	HELI- Human protein sequence SEQ ID NO:15998.	2713	97
1395	gi104362 42	Homo sapiens	cDNA FLJ13941 fis, clone Y79AA1000850.	2713	97
1395	AAB428 18	Homo sapiens	CURA- Human ORFX ORF2582 polypeptide sequence	1093	94

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			SEQ ID NO:5164.		
1396	gi726392 8	Homo sapiens	Human DNA sequence from clone RP1-61A9 on chromosome 1p35.2-36.13	5326	99
			Contains part of the EPHB2 gene for tyrosine-protein kinase, the gene KIAA0478 for a C2H2 type zinc finger gene, ESTs,		
			STSs, GSSs and three putative CpG Islands, complete sequence.		
1396	AAE0436 2	Homo sapiens	INCY- Human kinase (PKIN)-3.	5308	99
1396	AAU006 91	Homo sapiens	CURA- Ephrin type-A receptor 8-like protein.	5259	99
1397	gi104376 26	Homo sapiens	cDNA: FLJ21511 fis, clone COL05748.	3713	99
1397	gi167414 00	Mus musculus	Similar to hypothetical protein FLJ21511	3125	82
1397	gi145889 31	Saccharom yees cerevisiae	hypothetical protein	690	29
1398	AAB947 13	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15714.	2869	100
1398	gi104357 45	Homo sapiens	cDNA FLJ13664 fis, clone PLACE1011649.	2869	100
1398	gi168772 91	Homo sapiens	Similar to hypothetical protein 24432, clone MGC:21034 IMAGE:4400396, mRNA, complete cds.	2843	99
1399	AAB829 40	Homo sapiens	UYNY Human androgen receptor trapped protein 5 (ART5).	1429	100
1399	AAB560 85	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 9 SEQ ID NO:179.	1429	100
1399	gi104392 04	Homo sapiens	cDNA: FLJ22709 fis, clone HSI13338.	1429	100
1400	gi104396 25	Homo sapiens	cDNA: FLJ23056 fis, clone LNG03287.	1190	100
1400	gi729573 2	Drosophila melanogaster	ft gene product	185	27
1400	gi157409	Drosophila melanogaster	fat protein	185	27
1401	gi139362 85	Mus musculus	TRH4	1332	61
1401	gi128455 40	Mus musculus	putative	1330	61
1401	AAU007 82	Homo sapiens	INCY- Human apoptosis protein, APOP-2.	1092	65
1402	AAU004 75	Homo sapiens	MILL- Human INTERCEPT 394 alternative form protein.	4272	97
1402	AAU004 73	Homo sapiens	MILL- Human INTERCÉPT 394 protein.	4089	99
1402	gi104384 50	Homo sapiens	cDNA: FLJ22169 fis, clone HRC00632.	3505	99
1403	gi107988 04	Homo sapiens	HCMOGT-1 mRNA for sperm antigen, complete cds.	3737	98
1403	ABB1229	Homo sapiens	HYSE- Human secreted protein	2811	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	7		homologue, SEQ ID NO:2667.		
1403	AAM252 55	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:770.	2778	98
1404	AAB954 25	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17833.	4871	100
1404	gi104354 87	Homo sapiens	cDNA FLJ13465 fis, clone PLACE1003493, weakly similar to ENDOTHELIAL CELL MULTIMERIN PRECURSOR.	4871	100
1404	AAY363 00	Homo sapiens	HUMA- Human secreted protein encoded by gene 77.	2472	98
1405	gi100472 11	Homo sapiens	mRNA for KIAA1573 protein, partial cds.	6270	100
1405	gi143883 34	Macaca fascicularis	hypothetical protein	5174	99
1405	AAB958 83	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18994.	3679	100
1406	gi147146 ¹ 04	Homo sapiens	clone MGC:17248 IMAGE:4215164, mRNA, complete cds.	3291	96
1406	AAW803 18	Homo sapiens	SMIK Neurodegenerative polypeptide HHPDZ65var.	2893	100
1406	gi834683 4	Homo sapiens	mRNA for putative acid-sensing ion channel (ASIC4 gene).	2893	100
1407	AAB656 97	Homo sapiens	SUGE- Novel protein kinase, SEQ ID NO: 225.	1647	100
1407	gi140439 28	Homo sapiens	clone IMAGE:4139786, mRNA, partial cds.	1117	100
1407	AAG024 79	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 6560.	442	100
1408	AAR499 43	Homo sapiens	YAMA/ Human hippocampal cholinergic neurotrophic peptide precursor.	881	89
1408	gi704465	Homo sapiens	H.sapiens mRNA for phosphatidylethanolamine binding protein.	881	89
1408	gi435638	Homo sapiens	Human mRNA for human homologue of rat phosphatidylethanolamine binding protein, complete cds.	881	89
1409	AAB955 17	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18089.	4520	99
1409	gi104357 76	Homo sapiens	cDNA FLJ13687 fis, clone PLACE2000061.	4520	99
1409	gi726465	Mus musculus	Kiaa0575	1867	48
1410	gi170283 41	Homo sapiens	hypothetical protein FLJ21820, clone MGC:14932 IMAGE:3611020, mRNA, complete cds.	1732	100
1410	gi104379 97	Homo sapiens	cDNA: FLJ21820 fis, clone HEP01232.	1732	100
1410	gi167697 18	Drosophila melanogaster	LP01162p	437	33
1411	gi150797 29	Homo sapiens	hypothetical protein FLJ21125, clone MGC:14948 IMAGE:4303449, mRNA,	1530	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			complete cds.		
1411	gi104371 58	Homo sapiens	cDNA: FLJ21125 fis, clone CAS06077.	1530	99
1411	AAY946 74	Homo sapiens	ZYMO Human zsig83 mature protein sequence.	142	34
1412	gi104381 26	Homo sapiens	cDNA: FLJ21918 fis, clone HEP04006.	3799	100
1412	AAY844 40	Homo sapiens	INCY- Amino acid sequence of a human RNA-associated protein.	2085	59
1412	gi702009 4	Homo sapiens	cDNA FLJ20171 fis, clone COL09761.	1246	66
1413	gi140310 72	Homo sapiens	Human DNA sequence from clone RP3-331H24 on chromosome 6 Contains a putative novel gene, part of the gene for hypothetical protein FLJ21079, similar to opioid growth factor receptor, ESTs, STSs, GSSs and a CpG island, complete sequence.	1307	99
1413	gi104370 94	Homo sapiens	cDNA: FLJ21079 fis, clone CAS02253.	1307	99
1413	gi 128434 68	Mus musculus	putative	922	73
1414	AAB943 98	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14968.	3638	100
1414	gi104347 85	Homo sapiens	cDNA FLJ12987 fis, clone NT2RP3000068, weakly similar to SON OF SEVENLESS PROTEIN HOMOLOG 1.	3638	100
1414	AAB956 39	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18376.	3001	100
1415	gi136234 91	Homo sapiens	clone MGC:13125 IMAGE:4111572, mRNA, complete cds.	3054	100
1415	gi165537 93	Homo sapiens	cDNA FLJ25103 fis, clone CBR01405.	1586	74
1415	AAM662 79	Homo sapiens	MOLE- Human bone marrow expressed probe encoded protein SEQ ID NO: 26585.	1301	100
1416	ABB1167	Homo sapiens	HYSE- Human secreted protein homologue, SEQ ID NO:2045.	1238	99
1416	gi159289 21	Homo sapiens	hypothetical protein FLJ14393, clone MGC:17935 IMAGE:3916148, mRNA, complete cds.	1238	99
1416	AAY452 72	Homo sapiens	HUMA- Human secreted protein encoded from gene 16.	1236	99
1417	gi136232 49	Homo sapiens	Similar to RIKEN cDNA 3110082117 gene, clone MGC:11257 IMAGE:3941780, mRNA, complete cds.	945	95
1417	gi128520 07	Mus musculus	putative	466	61
1417	AAW679 36	Homo sapiens	HUMA- Fragment of human secreted protein encoded by	329	98

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			gene 57.		1
1418	gi139382 74	Homo sapiens	clone MGC:15548 IMAGE:3051320, mRNA, complete cds.	3136	99
1418	AAU163 73	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1326.	963	100
1418	AAU159 22	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 875.	963	100
1419	AAB930 81	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11914.	1812	98
1419	gi140424 19	Homo sapiens	cDNA FLJ14712 fis, clone NT2RP3000825, weakly similar to NEUROGENIC LOCUS NOTCH 3 PROTEIN.	1812	98
1419	AAY727 13	Homo sapiens	HUMA- HWAAQ40 clone human attractin-like protein.	1212	99
1420	AAU124 18	Homo sapiens	GETH Human PRO1275 polypeptide sequence.	643	98
1420	AAY993 79	Homo sapiens	GETH Human PRO1275 (UNQ645) amino acid sequence SEQ ID NO:136.	643	98
1420	AAB256 83	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 19 SEQ ID NO:72.	643	98
1421	gi104387 12	Homo sapiens	cDNA: FLJ22358 fis, clone HRC06415.	3025	100
1421	gi142111 39	Homo sapiens	NADPH oxidase 5 gamma mRNA, complete cds.	3019	99
1421	gi142111 37	Homo sapiens	NADPH oxidase 5 alpha mRNA, complete cds.	3019	99
1422	gi126583 05	Homo sapiens	kappa B and V(D)J recombination signal sequences binding protein (KRC) mRNA, complete cds.	8934	99
1422	gi100471 75	Homo sapiens	mRNA for KIAA1555 protein, partial cds.	8588	99
1422	gi137788	Mus musculus	DNA binding protein Rc	6216	76
1423	gi173892 08	Homo sapiens	clone MGC:16889 IMAGE:3883022, mRNA, complete cds.	2465	100
1423	gi152781 67	Homo sapiens	differentiation-related DIF14 long form (DIF14) mRNA, complete cds, alternatively spliced.	2448	99
1423	gi965122 0	Mus musculus	LMBR1 long form	2391	96
1424	gi104370 78	Homo sapiens	cDNA: FLJ21069 fis, clone CAS01594.	2523	99
1424	gi159297 78	Homo sapiens	hypothetical protein FLJ21069, clone MGC:21026 IMAGE:4431888, mRNA, complete cds.	2517	99
1424	gi128597 74	Mus musculus	putative	2182	86
1425	AAM937 35	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3701.	1364	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1425	gi128553 79	Mus musculus	putative	1332	87
1425	gi163593 63	Mus musculus	Similar to hypothetical protein MGC12921	652	53
1426	gi165536 18	Homo sapiens	cDNA FLJ33140 fis, clone UTERU1000160, moderately similar to ZINC FINGER PROTEIN 191.	2173	99
1426	gi104400 85	Homo sapiens	cDNA: FLJ23407 fis, clone HEP19601.	1146	100
1426	gi142501 46	Homo sapiens	hypothetical protein FLJ23407, clone MGC:14819 IMAGE:4248596, mRNA, complete cds.	1143	99
1427	gi127341 04	Homo sapiens	Human DNA sequence from clone RP11-371L19 on chromosome 20. Contains two novel genes, the gene for a novel protein similar to 40S ribosomal protein S10 (RPS10), ESTs, STSs, GSSs and five CpG islands, complete sequence.	2452	100
1427	gi155241 16	Homo sapiens	unnamed protein product	2431	98
1427	gi146024 88	Homo sapiens	clone MGC:10698 IMAGE:3689286, mRNA, complete cds.	2395	98
1428	AAG675 09	Homo sapiens	SMIK Amino acid sequence of a human secreted polypeptide.	4286	100
1428	gi156208 67	Homo sapiens	mRNA for KIAA 1904 protein, partial cds.	4272	99
1428	gi319197 5	Homo sapiens	Human DNA sequence from clone RP1-63G5 on chromosome 22q12.3-13.1 Contains the 3' part of the PSCD4 gene for a human SEC7 homolog B2-1 (cytohesin-2, Arno, ARF exchange factor) LIKE protein, a novel gene and the gene coding for a Leucine rich protein. Contains ESTs, STSs, GSSs and three putative CpG islands, complete sequence.	953	100
1429	AAG023 49	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 6430.	468	100
1429	gi177046 2	Homo sapiens	H.sapiens mRNA for M-phase phosphoprotein, mpp6.	468	100
1429	gi150296 28	Homo sapiens	Similar to M-phase phosphoprotein 6, clone MGC:13538 IMAGE:4287267, mRNA, complete cds.	468	100
1430	AAB883 77	Homo sapiens	HELI- Human membrane or secretory protein clone PSEC0113.	239	100
1430	AAB089 04	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 14 SEQ ID NO:61.	239	100
1430	gi142726	Homo sapiens	unnamed protein product	239	100

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
•	08				
1431	gi999289 3	Homo sapiens	phosphoinositol 3-phosphate binding protein-1 (PEPP1) mRNA, complete cds.	3906	95
1431	AAB420 86	Homo sapiens	CURA- Human ORFX ORF1850 polypeptide sequence SEQ ID NO:3700.	427	71
1431	gi458958 2	Homo sapiens	mRNA for KIAA0969 protein, complete cds.	256	31
1432	gi999289 3	Homo sapiens	phosphoinositol 3-phosphate binding protein-1 (PEPP1) mRNA, complete cds.	4152	99
1432	AAB420 86	Homo sapiens	CURA- Human ORFX ORF1850 polypeptide sequence SEQ ID NO:3700.	672	99
1432	AAO125 92	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 26484.	475	100
1433	AAY949 47	Homo sapiens	GEMY Human secreted protein clone cw1292_8 protein sequence SEQ ID NO:100.	408	100
1433	AAB651 95	Homo sapiens	GETH Human PRO830 (UNQ470) protein sequence SEQ ID NO:175.	215	64
1433	AAY666 72	Homo sapiens	GETH Membrane-bound protein PRO830.	215	64
1434	gi165538 18	Homo sapiens	cDNA FLJ25124 fis, clone CBR06414.	1573	100
1434	AAG021 37	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 6218.	554	98
1434	AAH755 22_aa1	Homo sapiens	SHAN- Human myosin heavy chain 74 encoding cDNA.	275	22
1435	AAF8417 1 aal	Homo sapiens	CHUG- Human OATP-B coding sequence.	188	92
1435	AAZ9240 3_aa1	Homo sapiens	SCHE cDNA encoding human DC-PGT.	188	92
1435	AAC618 83_aa1	Homo sapiens	CHIR cDNA encoding a human secreted protein.	188	92
1436	gi112304 87	Rattus norvegicus	NTPDase6	501	96
1436	AAB722 42	Homo sapiens	HYSE- Mature human CD39 like protein CD39-L2 amino acid sequence.	414	80
1436	AAB722 41	Homo sapiens	HYSE- Human CD39 like protein CD39-L2 amino acid sequence.	414	80
1437	gi724322 9	Homo sapiens	mRNA for KIAA1424 protein, partial cds.	6604	99
1437	AAB979 11	Homo sapiens	SHAN- Human G-protein activating protein 129 SEQ ID NO:2.	6021	99
1437	AAB416 60	Homo sapiens	CURA- Human ORFX ORF1424 polypeptide sequence SEQ ID NO:2848.	4377	. 99
1438	AAB088 94	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 4 SEQ ID NO:51.	211	69
1438	gi156262	Buffalopox virus	p8 protein homologue	69	31

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	57				
1438	gi583067 8	variola minor virus	A14L protein	68	27
1439	AAG017 13	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5794.	670	99
1439	gi120019 70	Homo sapiens	clone 015h12 My015 protein mRNA, complete cds.	495	96 .
1439	gi996391 0	Xenopus laevis	Churchill protein	495	71
1440	gi140178 31	Homo sapiens	mRNA for KIAA1807 protein, partial cds.	1751	100
1440	gi104388 85	Homo sapiens	cDNA: FLJ22479 fis, clone HRC10831.	1524	100
1440	gi144245 58	Homo sapiens	KJAA0239 protein, clone JMAGE:4301096, mRNA, partial cds.	157	28
1441	AAB436 17	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1062.	1481	93
1441	AAP9191 3	Homo sapiens	BEHW Anticoagulative PP4X.	1481	93
1441	gi189617	Homo sapiens -	Human protein PP4-X mRNA, complete cds.	1481	93
1442	AAE0379 0	Homo sapiens	HUMA- Human gene 9 encoded secreted protein fragment, SEQ ID NO:60.	391	100
1442	AAE0378 5	Homo sapiens	HUMA- Human gene 9 encoded secreted protein HMWDW68, SEQ ID NO:55.	391	100
1442	AAY734 25	Homo sapiens	GEMY Human secreted protein clone yj3_1 protein sequence SEQ ID NO:72.	391	100
1443	gi388232 9	Homo sapiens	mRNA for KIAA0804 protein, partial cds.	6282	100
1443	AAB943 56	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14879.	4093	99
1443	gi104346 28	Homo sapiens	cDNA FLJ12883 fis, clone NT2RP2003981, weakly similar to VACUOLAR PROTEIN SORTING-ASSOCIATED PROTEIN VPS8.	4093	99
1444	gi125396	Homo sapiens	AKAP-associated sperm protein (ASP) mRNA, complete cds.	1215	99
1444	gi157790 77	Homo sapiens	AKAP-associated sperm protein, clone MGC:26950 IMAGE:4820798, mRNA, complete cds.	1212	99
1444	gi118782 18	Mus musculus	cAMP-dependent protein kinase regulatory subunit	937	78
1445	AAB435 99	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1044.	1283	100
1445	gi141249 28	Homo sapiens	clone MGC:3644 IMAGE:2966331, mRNA, complete cds.	1219	100
1.445	gi140438 53	Homo sapiens	thymidine kinase 1, soluble, clone MGC:14441	1219	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			IMAGE:4303880, mRNA, complete cds.		
1446	AAE0040 4	Homo sapiens	ZYMO Human phosphodiesterase zcytor13 protein.	2733	100
1446	gi139223 71	Homo sapiens	unnamed protein product	2733	100
1446	AAM255 48	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1063.	2584	100
1447	gi376644 3	Homo sapiens	QDPR gene, exon 1 and joined CDS.	1069	87
1447	gi30819	Homo sapiens	Human mRNA for dihydropteridine reductase (hDHPR).	1069	87
1447	gi181553	Homo sapiens	Human dihydropteridine reductase (hDHPR) mRNA, complete cds.	1069	87
1448	gi132766 31	Homo sapiens	mRNA; cDNA DKFZp761F241 (from clone DKFZp761F241); complete cds.	747	100
1448	gi128448 72	Mus musculus	putative	650	87
1448	AAY597 95	Homo sapiens	META- Human normal ovarian tissue derived protein 72.	554	100
1449	AAB429 06	Homo sapiens	CURA- Human ORFX ORF2670 polypeptide sequence SEQ ID NO:5340.	834	100
1449	gi131951 51	Homo sapiens	transcription factor TZP (TZP) mRNA, complete cds.	534	54
1449	gi102414 61	Homo sapiens	Human DNA sequence from clone RP5-1121G12 on chromosome 20 Contains the 3' end of a gene encoding the hepatocellular carcinoma-associated antigen 58 (HCA58), the SCAND1 gene encoding the domain-containing 1 protein, a novel gene, 2 CpG islands, ESTs, STSs and GSSs, complete sequence.	534	
1450	AAY120 21	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO: 334.	265	97
1450	gi962621 8	Beet curly top virus	ORF20.1 > [Beet curly top	63	27
1451	AAG018 78	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5959.	348	92
1451	AAB541 58	Homo sapiens	HUMA- Human pancreatic cancer antigen protein sequence SEQ ID NO:610.	225	91
1452	AAO083 54	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 22246.	1451	89
1452	AAY733 84	Homo sapiens	INCY- HTRM clone 2284580 protein sequence.	1451	89
1452	gi136999 02	Homo sapiens	mRNA for nucleolar phosphoprotein Nopp34, complete cds.	1451	89
1453	gi142499	Homo sapiens	Similar to hypothetical protein	2387	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	53		FLJ22376, clone MGC:16044 IMAGE:3610443, mRNA, complete cds.		
1453	gi167405 59	Homo sapiens	clone MGC:13247 IMAGE:4040497, mRNA, complete cds.	1067	100
1453	gi165517 33	Homo sapiens	cDNA FLJ31791 fis, clone NT2RJ2008749, weakly similar to SPLICEOSOME ASSOCIATED PROTEIN 49.	1023	53
1454	AAM663 21	Homo sapiens	MOLE- Human bone marrow expressed probe encoded protein SEQ ID NO: 26627.	883	50
1454	AAM539 33	Homo sapiens	MOLE- Human brain expressed single exon probe encoded protein SEQ ID NO: 26038.	883	50
1454	gi449038 8	Felis silvestris	polyprotein	672	44
1455	AAB948 15	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15961.	719	100
1455	gi104362 05	Homo sapiens	cDNA FLJ13920 fis, clone Y79AA1000420.	719	100
1455	gi128475 56	Mus musculus	putative	169	46
1456	gi33044	Homo sapiens	Human mRNA for insulin-like growth factor II (clone P21).	742	97
1456	gi182528	Homo sapiens	Human preproinsulin-like growth factor II (IGF-II) variant mRNA, complete cds.	717	78
1456	AAY703 64	Homo sapiens	UYLO- Insulin-like growth factor II.	714	78
1457	AAY993 51	Homo sapiens	GETH Human PRO1481 (UNQ750) amino acid sequence SEQ ID NO:41.	1725	100
1457	AAB102 59	I-lomo sapiens	GEMY Human fetal placenta protein fragment BA176_1i.	1631	88
1457	AAB102 51	Homo sapiens	GEMY Human adult testes protein fragment AJ142 1i.	761	97
1458	AAB436 07	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1052.	664	88
1458	gi695360	Homo sapiens	nuclear-encoded mitochondrial cytochrome c oxidase Va subunit mRNA, complete cds.	658	87
1458	gi128585 80	Mus musculus	putative	544	73
1459	gi754922 3	Mus musculus	PALS1	3386	96
1459	AAB941 80	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14494.	2590	99
1459	gi104342 10	Homo sapiens	cDNA FLJ12615 fis, clone NT2RM4001629, weakly similar to MAGUK P55 SUBFAMILY MEMBER 3.	2590	99
1460	gi126979 87	Homo sapiens	mRNA for KIAA1721 protein, partial cds.	3859	99
1460	AAB944	Homo sapiens	HELI- Human protein sequence	3853	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	35		SEQ ID NO:15056.	f	1202010
1460	gi104348 78	Homo sapiens	cDNA FLJ13046 fis, clone NT2RP3001374.	3853	99
1461	gi152144 23	Homo sapiens	clone IMAGE:4563921, mRNA, partial cds.	2603	100
1461	gi 179017 49	Homo sapiens	unnamed protein product	2603	100
1461	gi167407 25	Mus musculus	Similar to hexokinase 1	2411	91
1462	AAG755 79	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:6343.	714	85
1462	AAB435 66	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1011.	714	85
1462	gi239865 7	Homo sapiens	H.sapiens mRNA translocon- associated protein delta subunit precursor.	714	85
1463	AAG891 28	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 248.	2076	100
1463	gi163068 50	Homo sapiens	hypothetical protein FLJ22637, clone MGC:2443 IMAGE:2821972, mRNA, complete cds.	2076	100
1463	gi104391 04	Homo sapiens	cDNA: FLJ22637 fis, clone HSI06677.	2076	100
1464	AAW642 62	Homo sapiens	BGHM Human neutrophil clastase.	1326	96
1464	AAP8033 5	Homo sapiens	TORA) TORAY IND INC (AOKI/ Sequence of serine protease (SP) of human myeloid cellorigin and leader peptide.	1326	96
1464	gi386981	Homo sapiens	Human neutrophil elastase gene, exon 5.	1326	96
1465	AAY113 85	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID No 207.	220	100
1465	AAB677 83	Homo sapiens	INRM Amino acid sequence of a human thyroid NADPH-oxidase.	75	33
1465	AAM245 05	Homo sapiens	CORI- Colon tumour related amino acid sequence for C799P.	75	33
1466	gi289575 8	Bos taurus	phosphatidic acid-preferring phospholipase A1	4245	91
1466	gi126979 55	Homo sapiens	mRNA for KIAA1705 protein, partial cds.	2582	99
1466	gi165541 84	Homo sapiens	cDNA FLJ25408 fis, clone TST02965, highly similar to Bos taurus phosphatidic acid- preferring phospholipase A1 mRNA.	2378	100
1467	gi147900 25	Homo sapiens	clone MGC:9168 IMAGE:3876839, mRNA, complete cds.	1488	100
1467	gi167686 82	Drosophila melanogaster	HL02815p	1155	49
1467	gi107269 44	Drosophila melanogaster	CG11306 gene product	1155	49
1468	AAB747	Homo sapiens	HUMA- Human secreted protein	902	91

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
•	60		sequence encoded by gene 18 SEQ ID NO:69.		
1468	AAB747 59	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 18 SEQ ID NO:68.	902	91
1468	AAB747 50	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 18 SEQ ID NO:59.	902	91
1469	AAB747 60	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 18 SEQ ID NO:69.	1006	96
1469	AAB747 59	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 18 SEQ ID NO:68.	1006	96
1469	AAB747 50	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 18 SEQ ID NO:59.	1006	96
1470	AAW131 08	Homo sapiens	ONYX- Human 14-3-3 beta or HS1 1054.	1225	95
1470	gi279155 2	Homo sapiens	Human DNA sequence from clone RP1-148E22 on chromosome 20q12-13.12 Contains the YWHAB gene encoding tyrosine 3-monooxygenase/ntryptophan 5-monooxygenase activation protein, beta polypeptide, a novel gene similar to PABPC1 (poly (A)-binding protein, cytoplasmic 1), 2 CpG islands, ESTs, STSs and GSSs, complete sequence.	1225	95
1470	gi23114	Homo sapiens	H.sapiens mRNA for HS1 protein.	1225	95
1471	AAB948 34	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16000.	2638	100
1471	gi104362 44	Homo sapiens	cDNA FLJ13942 fis, clone Y79AA1000962, weakly similar to MYOSIN HEAVY CHAIN, NON-MUSCLE.	2638	100
1471	gi142905 66	Homo sapiens	hypothetical protein FLJ13942, clone MGC:9884 IMAGE:3867690, mRNA, complete cds.	1501	100
1472	AAB105 50	Homo sapiens	HOFM/ Human aspartate protease psl 4 protein.	1925	100
1472	AAB088 60	Homo sapiens	INCY- Amino acid sequence of a human secretory protein.	1925	100
1472	AAB089 71	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 25 SEQ ID NO:128.	1920	99
1473	AAG892 62	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 382.	231	100
1473	AAY307 21	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	231	100
1473	AAB236 15	Homo sapiens	ALPH- Human secreted protein SEQ ID NO: 30.	222	97
1474	gi702033	Homo sapiens	cDNA FLJ20318 fis, clone	2962	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	6		HEP08704.		
1474	AAM406 51	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 5582.	1804	47
1474	AAM388 65	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 2010.	1804	47
1475	gi144956 21	Homo sapiens	hypothetical protein FLJ22578, clone MGC:14892 IMAGE:3506508, mRNA, complete cds.	816	100
1475	gi104390 14	Homo sapiens	cDNA: FLJ22578 fis, clone HSI02546.	802	100
1475	AAM728 25	Homo sapiens	MOLE- Human bone marrow expressed probe encoded protein SEQ ID NO: 33131.	616	100
1476	gi222469 7	Homo sapiens	Human mRNA for KIAA0378 gene, partial cds.	4017	100
1476	gi668158 3	Homo sapiens	ELKS mRNA, complete cds.	3463	72
1476	gi134457 84	Mus musculus	Rab6-interacting protein 2 isoform A	3423	70
1477	gi155303 23	Homo sapiens	clone MGC:4131 IMAGE:2961417, mRNA, complete cds.	3200	99
1477	gi163075 02	Mus musculus	Unknown (protein for MGC:11530)	3076	95
1477	gi152772 34	Homo sapiens	genomic DNA, chromosome 6p21.3, HLA Class I region, section 12/20.	2227	99
1478	AAY117 94	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID No: 394.	375	100
1478	AAB949 77	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16558.	68	35
1478	gi104331 41	Homo sapiens	cDNA FLJ11800 fis, clone HEMBA1006252.	68	35
1479	AAB087 32	Homo sapiens	UYCO Amino acid sequence of a human OLD-35 polypeptide.	3498	98
1479	gi128358 17	Mus musculus	putative	2439	89
1479	AAB926 84	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11065.	2369	99
1480	gi144245 68	Homo sapiens	Mov10 (Moloney leukemia virus 10, mouse) homolog, clone MGC:15000 IMAGE:4109453, mRNA, complete cds.	4983	100
1480	gi128034 47	Homo sapiens	Similar to Moloney leukemia virus 10, clone MGC:2948 IMAGE:3138543, mRNA, complete cds.	4983	100
1480	gi100473 39	Homo sapiens	mRNA for KIAA1631 protein, partial cds.	4983	100
1481	AAU055 84	Homo sapiens	OXFO- Human breast cancer membrane protein 81, BCMP- 81.	718	100
1481	AAU257 27	Homo sapiens	OXFO- Breast cancer-associated membrane protein (BCMP) 81.	718	100
1481	AAW857 38	Homo sapiens	SAGA Polypeptide with transmembrane domain.	718	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1482	gi140179 57	Homo sapiens	mRNA for KIAA1870 protein, partial cds.	1496	94
1482	AAB420 00	Homo sapiens	CURA- Human ORFX ORF1764 polypeptide sequence SEQ ID NO:3528.	1302	93
1482	AAB938 66	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13743.	860	100
1483	gi140179 57	Homo sapiens	mRNA for KIAA1870 protein, partial cds.	1608	100
1483	AAB420 00	Homo sapiens	CURA- Human ORFX ORF1764 polypeptide sequence SEQ ID NO:3528.	1414	100
1483	AAB938 66	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13743.	860	100
1484	gi499184	Felis catus	neuronal protein	617	96
1484	AAB950 41	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16804.	507	77
1484	gi795925 I	Homo sapiens	mRNA for KIAA1495 protein, partial cds.	507	77
1485	AAB604 57	Homo sapiens	INCY- Human cell cycle and proliferation protein CCYPR-5, SEQ ID NO:5.	928	100
1485	gi150805 50	Homo sapiens	hypothetical protein FLJ23467, clone MGC:21000 IMAGE:4509736, mRNA, complete cds.	928	100
1485	gi104401 66	Homo sapiens	cDNA: FLJ23467 fis, clone HSI11213.	925	99
1486	AAB933 01	Homo sapiens	HELI- Human protein sequence SEQ ID NO:12369.	4341	99
1486	gi140426 07	Homo sapiens	cDNA FLJ14812 fis, clone NT2RP4002081, weakly similar to TRANSCRIPTION INITIATION FACTOR IIA ALPHA AND BETA CHAINS.	4341	99
1486	gi100471 79	Homo sapiens	mRNA for KIAA1557 protein, partial cds.	4168	99
1487	AAB948 04	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15939.	2050	100
1487	gi150825 06	Homo sapiens	hypothetical protein FLJ13910, clone MGC:20406 IMAGE:4636136, mRNA, complete cds.	2050	100
1487	gi104361 89	Homo sapiens	cDNA FLJ13910 fis, clone Y79AA1000131.	2050	100
1488	gi128460 13	Mus musculus	putative	1876	97
1488	gi783955 9	Homo sapiens	PAD mRNA, complete cds.	1789	98
1488	gi136041 69	Homo sapiens	ARG147 mRNA, complete cds.	1575	99
1489	gi126979 35	Homo sapiens	mRNA for KIAA 1695 protein, partial cds.	2124	100
1489	gi104386 24	Homo sapiens	cDNA: FLJ22297 fis, clone HRC04521.	2124	100
1489	AAB424 21	Homo sapiens	CURA- Human ORFX ORF2185 polypeptide sequence	1571	100

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
_			SEQ ID NO:4370.		
1490	AAB475 62	Homo sapiens	INCY- Protease PRTS-4.	4321	99
1490	AAM937 85	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3804.	4317	99
1490	gi128363 32	Mus musculus	putative	4152	95
1491	gi165538 16	Homo sapiens	cDNA FLJ25123 fis, clone CBR06154.	1752	93
1491	AAO118 34	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 25726.	1347	98
1491	AAM257 94	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1309.	919	99
1492	gi140433 13	Homo sapiens	clone IMAGE:3609599, mRNA, partial cds.	780	100
1492	AAY122 25	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO: 538.	511	97
1492	AAG005 45	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 4626.	500	97
1493	AAM934 50	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3100.	2693	99
1493	AAY077 54	Homo sapiens	HUMA- Human secreted protein fragment encoded from gene 11.	1723	100
1493	AAW790 94	Homo sapiens	GEMY Human secreted protein do568_11.	1699	98
1494	AAG648 94	Homo sapiens	BIOD- Human phosphoenol pyruvate carboxylase 81.	3851	100
1494	AAB952 50	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17415.	1589	100
1494	gi132766 65	Homo sapiens	mRNA; cDNA DKFZp761K1524 (from clone DKFZp761K1524); complete cds.	1493	100
1495	AAB437 37	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1182.	817	89
1495	AAR592 88	Homo sapiens	SHIO Human reg protein.	817	89
1495	gi576455	Homo sapiens	lithostathine (REG1A) mRNA, complete cds.	817	89
1496	gi126525 61	Homo sapiens	Similar to cytochrome b-561, clone MGC:3308 IMAGE:3509626, mRNA, complete cds.	1129	96
1496	gi128042 35	Homo sapiens	Similar to cytochrome b-561, clone MGC:2190 IMAGE:3535771, mRNA, complete cds.	1126	95
1496	gi939707	Homo sapiens	Human cytochrome b561 gene, exon 5 and complete cds.	1124	95
1497	gi 104370 90	Homo sapiens	cDNA: FLJ21077 fis, clone CAS02152.	2182	99
1497	gi104372 11	Homo sapiens	cDNA: FLJ21159 fis, clone CAS09969.	1885	100
1497	AAB639 60	Homo sapiens	LUDW- Human prostate cancer associated antigen protein sequence SEQ ID NO:1322.	904	96

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1498	AAB409 96	Homo sapiens	CURA- Human ORFX ORF760 polypeptide sequence SEQ ID NO:1520.	3391	95
1498	gi104369 63	Homo sapiens	cDNA: FLJ20986 fis, clone CAE01156.	3137	99
1498	AAM935 25	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3259.	2627	99
1499	AAB998 91	Homo sapiens	CHUG- Human RNA helicase gene helicain B protein sequence SEQ ID NO:4.	3818	100
1499	gi165665 50	Homo sapiens	DEAD/DEXH helicase DDX31 mRNA, complete cds.	3817	99
1499	gi152152 73	Homo sapiens	hypothetical protein FLJ13633, clone MGC:14872 IMAGE:3941452, mRNA, complete cds.	3455	100
1500	gi120055	Homo sapiens	HT027 mRNA, complete cds.	744	100
1500	gi104368 44	Homo sapiens	cDNA: FLJ20886 fis, clone ADKA03257.	739	99
1500	gi110369 73	Homo sapiens	HSP22-like protein interacting protein 17 mRNA, complete cds.	459	100
1501	AAB952 61	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17444.	906	100
1501	gi104347 55	Homo sapiens	cDNA FLJ12967 fis, clone NT2RP2005806.	906	100
1501	AAB942 67	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14682.	587	95
1502	gi165534 61	Homo sapiens	cDNA FLJ33132 fis, clone UMVEN2000133, weakly similar to RABPHILIN-3A.	2594	99
1502	gi104386 90	Homo sapiens	cDNA: FLJ22344 fis, clone HRC06080.	1661	99
1502	AAB935 62	Homo sapiens	HELI- Human protein sequence SEQ ID NO:12957.	1289	55
1503	gi165493 30	Homo sapiens	cDNA FLJ30165 fis, clone BRACE2000698, weakly similar to ANKYRIN 2.	2280	98
1503	gi126527 41	Homo sapiens	clone MGC:3130 IMAGE:3352851, mRNA, complete cds.	2267	78
1503	AAO018 50	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 15742.	1975	89
1504	AAB662 95	Homo sapiens	ICOS- Human tankyrase2 TANK2-SHORT SEQ ID NO: 135.	6088	99
1504	AAB662 94	Homo sapiens	ICOS- Human tankyrase2 TANK2-LONG SEQ ID NO: 133.	6088	99
1504	AAB662 90	Homo sapiens	ICOS- Human tankyrase2 clone consensus protein SEQ ID NO: 107.	6088	99
1505	gi568942 7	Homo sapiens	mRNA for KIAA1045 protein, partial cds.	2087	99
1505	gi133586 52	Macaca fascicularis	hypothetical protein	1205	96
1505	ABB1680	Homo sapiens	HUMA- Human nervous system	370	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	6		related polypeptide SEQ ID NO 5463.		
1506	gi568942 7	Homo sapiens	mRNA for KIAA1045 protein, partial cds.	2052	94
1506	gi133586 52	Macaca fascicularis	hypothetical protein	1205	96
1506	ABB1680 6	Homo sapiens	HUMA- Human nervous system related polypeptide SEQ ID NO 5463.	370	100
1507	gi104390 66	Homo sapiens	cDNA: FLJ22612 fis, clone HS104965.	2767	100
1507	gi145298 86	Mus musculus	bM145O4.1 (novel protein)	2276	78
1507	gi128553 00	Mus musculus	putative	2276	78
1508	gi114933 65	Homo sapiens	Human DNA sequence from clone RP5-1009E24 on chromosome 20 Contains the SN gene encoding sialoadhesin, a novel gene similar to KIAA0417, the CENPB gene for centromere protein B, the CDC25B gene for Cell division cycle protein 25B, three novel genes, the 5' end of gene KIAA1271, nine CpG islands, ESTs, STSs and GSSs, complete sequence.	6334	99
1508	gi126561 30	Homo sapiens	sialoadhesin mRNA, complete cds.	6330	99
1508	gi104404 38	Homo sapiens	mRNA for FLJ00055 protein, partial cds.	5046	99
1509	AAY765 39	Homo sapiens	META- Human ovarian tumor EST fragment encoded protein 35.	261	98
1510	AAE0488 4	Homo sapiens	INCY- Human protease protein- 11 (PRTS-11).	424	100
1510	AAB732 63	Homo sapiens	UYAL- Human triacylglycerol hydrolase, TGH.	209	51
1510	gi180950	Homo sapiens	Human carboxylesterase mRNA, complete cds.	209	51
1511	AAB944 05	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14983.	4412	100
1511	gi104347 98	Homo sapiens	cDNA FLJ12994 fis, clone NT2RP3000207, weakly similar to GLUCOAMYLASE S1/S2 PRECURSOR (EC 3.2.1.3).	4412	100
1511	gi104371 27	Homo sapiens	cDNA: FLJ21104 fis, clone CAS04958.	978	100
1512	AAB621 75	Homo sapiens	PLAC Human pl 10FYVE protein.	4028	99
1512	AAF5740 3_aa1	Homo sapiens	PLAC Human pl10FYVE protein encoding DNA.	4027	99
1512	gi113449 51	Homo sapiens	FYVE-finger-containing Rab5 effector protein Rabenosyn-5 mRNA, complete cds.	4027	99
1513	gi795926	Homo sapiens	mRNA for KIAA1500 protein,	4061	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	1	l"	partial cds.		
1513	gi983742 7	Lytechinus variegatus	embryonic blastocoelar extracellular matrix protein precursor	1085	34
1513	AAG733 54	Homo sapiens	HUMA- Human gene 9-encoded secreted protein HETAM53, SEQ ID NO:125.	517	100
1514	gi165501 08	Homo sapiens	cDNA FLJ30829 fis, clone FEBRA2001790, highly similar to Xenopus laevis RRM- containing protein SEB-4 mRNA.	914	100
1514	gi136244 61	Homo sapiens	Human DNA sequence from clone RP1-259A10 on chromosome 6p22.1-23 Contains the gene for an ssDNA binding protein (SEB4D), ESTs, STSs, GSSs and a CpG island, complete sequence.	914	100
1514	gi889569 8	Xenopus laevis	RRM-containing protein SEB-4	790	88
1515	gi165515 80	Homo sapiens	cDNA FLJ31673 fis, clone NT2RI2005061.	3158	99
1515	AAB949 29	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16399.	2275	100
1515	gi104328 47	Homo sapiens	cDNA FLJ11565 fis, clone HEMBA1003229.	2275	100
1516	gi394768 8	Homo sapiens	mRNA for Sec24 protein (Sec24A isoform), partial.	5355	98
1516	AAM791 11	Homo sapiens	HYSE- Human protein SEQ ID NO 1773.	3090	55
1516	gi394769 0	Homo sapiens	mRNA for Sec24 protein (Sec24B isoform).	3090	55
1517	AAY120 49	Homo supiens	GEST Human 5' EST secreted protein SEQ ID NO: 362.	253	92
1517	gi415506 3	Helicobacter pylori J99	putative	75	29
1517	gi573852 2	Schizosaccharom yces pombe	putative pre-mrna splicing factor atp-dependent rna helicase	69	33
1518	AAB203 49	Homo sapiens	UYRQ Human vomeronasal-like receptor hVLR1 (long form).	1859	99
1518	AAG642 95	Homo sapiens	HELI- Human GTP-binding protein-coupled receptor GPRv31.	1859	99
1518	gi998858 5	Homo sapiens	putative pheromone receptor VIRL1 long form (VIRL1) mRNA, complete cds.	1859	99
1519	gi142499 09	Homo sapiens	clone IMAGE:3506174, mRNA, partial cds.	2759	90
1519	gi142499 07	Homo sapiens	clone IMAGE:3506145, mRNA, partial cds.	2759	90
1519	AAY993 55	Homo sapiens	GETH Human PRO1295 (UNQ664) amino acid sequence SEQ ID NO:54.	1265	100
1520	gi160416 86	Homo sapiens	hypothetical protein FLJ22393, clone MGC:16798 IMAGE:3916157, mRNA,	1470	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			complete cds.		
1520	gi104387 63	Homo sapiens	cDNA: FLJ22393 fis, clone HRC07880.	1463	99
1520	gi128534 19	Mus musculus	putative	1446	98
1521	AAR350 72	Homo sapiens	UYPR- Human t-complex associated testes expressed protein 1.	2576	97
1521	gi201910	Mus musculus	Tcte-1 peptide	1883	74
1521	gi730028 5	Drosophila melanogaster	CG14325 gene product	348	27
1522	gi128517 62	Mus musculus	putative	689	88
1522	AAG022 98	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 6379.	382	100
1522	gi167690 34	Drosophila melanogaster	LD15209p	294	38
1523	AAQ905 26 aa1	Homo sapiens	OKLA- Human SIII 15 kDa subunit cDNA.	426	100
1523	AAW138 50	Homo sapiens	OKLA- Human RNA polymerase transcription factor elongin 15 kDa subunit.	426	100
1523	AAR750 87	Homo sapiens	OKLA- Human SIII 15 kDa subunit.	426	100
1524	gi128556 72	Mus musculus	putative	2165	85
1524	AAU174 29	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 994.	987	98
1524	AAG040 81	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 8162.	507	99
1525	AAW130 85	Homo sapiens	SAGA Human E2 ubiquinone binding enzyme.	667	88
1525	gi130971 95	Homo sapiens	ubiquitin-conjugating enzyme E2N (homologous to yeast UBC13), clone MGC:5063 IMAGE:2900313, mRNA, complete cds.	667	88
1525	gi126532 55	Homo sapiens	ubiquitin-conjugating enzyme E2N (homologous to yeast UBC13), clone MGC:8489 IMAGE:2822013, mRNA, complete cds.	667	88
1526	AAY872 71	Homo sapiens	INCY- Human signal peptide containing protein HSPP-48 SEQ ID NO:48.	471	86
1526	gi171280 86	Corynebacterium glutamicum	cdsA	70	27
1526	gi 125442 26	Corynebacterium glutamicum	RXA01894	70	27
1527	gi133589 42	Macaca fascicularis	hypothetical protein	2660	97
1527	AAB875 87	Homo sapiens	GETH Human PRO1693.	2647	100
1527	AAU124 39	Homo sapiens	GETH Human PRO1693 polypeptide sequence.	2647	100
1528	AAB425	Homo sapiens	CURA- Human ORFX	2137	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	73		ORF2337 polypeptide sequence SEQ ID NO:4674.		
1528	gi128458 23	Mus musculus	putative	1792	95
1528	gi449506 3	Homo sapiens	Human DNA sequence from clone 108K11 on chromosome 6p21 Contains SRP20 (SR protein family member), Ndr protein kinase gene similar to yeast suppressor protein SRP40, EST and GSS, complete sequence.	1468	99
1529	gi158236 36	Homo sapiens	ALS2 mRNA, complete cds, long form.	8660	99
1529	gi160768 12	Homo sapiens	alsin mRNA, complete cds.	8646	99
1529	gi158236 40	Mus musculus	Als2	8005	91
1530	AAG641 71	Homo sapiens	TAKE Human profilin IIL.	750	100
1530	gi128042 13	Homo sapiens	profilin 2, clone MGC:1684 IMAGE:3533907, mRNA, complete cds.	750	100
1530	gi109525 20	Homo sapiens	profilin IIa (PFN2) mRNA, complete cds, alternatively spliced.	750	100
1531	AAG641 71	Homo sapiens	TAKE Human profilin IIL.	636	87
1531	gi128042 13	Homo sapiens	profilin 2, clone MGC:1684 IMAGE:3533907, mRNA, complete cds.	636	87
1531	gi109525 20	Homo sapiens	profilin IIa (PFN2) mRNA, complete cds, alternatively spliced.	636	87
1532	AAB949 52	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16482.	1830	99
1532	gi179077 91	Homo sapiens	TAIP-2 mRNA for TGF-beta induced apotosis protein 2, complete cds.	1830	99
1532	gi104330 16	Homo sapiens	cDNA FLJ11703 fis, clone HEMBA1005075.	1830	99
1533	gi141332 23	Homo sapiens	mRNA for KIAA0876 protein, partial cds.	4559	100
1533	gi691056 3	Homo sapiens	chromosome 19, BC335474 (CIT-HSPC_482H14), complete sequence.	4370	99
1533	gi139380 56	Mus musculus	Similar to KIAA0677 gene	3313	73
1534	gi724319	Homo sapiens	mRNA for KIAA1405 protein, partial cds.	3986	99
1534	gi123136 47	Mus musculus	MmKIF17	3319	77
1534	gi410218	Homo sapiens	KIF3-related motor protein (KIF3X) mRNA, partial cds.	1084	90
1535	gi120533 II	Homo sapiens	mRNA; cDNA DKFZp434K229 (from clone DKFZp434K229); complete cds.	1600	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1535	gi104389 86	Homo sapiens	cDNA: FLJ22557 fis, clone HSI01483.	1405	100
1535	gi152145 57	Mus musculus	RIKEN cDNA 2410042D21 gene	1369	86
1536	gi122749 33	Homo sapiens	mRNA for alanine:glyoxylate aminotransferase 2 homolog 1, splice form 1 (AGXT2L1 gene).	2018	100
1536	gi128367 24	Mus musculus	putative	1689	83
1536	gi158596 90	Homo sapiens	unnamed protein product	1189	66
1537	gi140178 47	Homo sapiens	mRNA for KIAA1815 protein, partial cds.	2117	100
1537	gi123141 59	Homo sapiens	Human DNA sequence from clone RP11-207C16 on chromosome 9p23-24.3. Contains the 3' end of the gene for a novel protein similar to C. elegans R06F6.8 (Sw:Q09417) (contains KIAA1432), the 3' end of the gene for a novel protein similar to predicted yeast, plant and worm proteins, ESTs, STSs and GSSs, complete sequence.	2117	100
1537	gi 104399 48	Homo sapiens	cDNA: FLJ23309 fis, clone HEP11618.	1725	99
1538	gi 104371 87	Homo sapiens	cDNA: FLJ21144 fis, clone CAS07955.	1919	99
1538	ÀAB953 60	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17664.	1912	99
1538	gi128518 10	Mus musculus	putative	1672	84
1539	gi332703 6	Homo sapiens	mRNA for KIAA0611 protein, partial cds.	4702	100
1539	gi139053 02	Mus musculus	Similar to ATPase, class II, type 9A	3961	98
1539	gi643496 8	Mus musculus	putative E1-E2 ATPase	3942	98
1540	AAB939 76	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14051.	2580	100
1540	gi104338 68	Homo sapiens	cDNA FLJ12401 fis, clone MAMMA1002796.	2580	100
1540	AAM698 00	Homo sapiens	MOLE- Human bone marrow expressed probe encoded protein SEQ ID NO: 30106.	1108	100
1541	AAB949 01	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16290.	1317	99
1541	gi104327 16	Homo sapiens	cDNA FLJ11457 fis, clone HEMBA1001522.	1317	99
1541	gi128531 91	Mus musculus	putative	887	62
1542	AAB735 07	Homo sapiens	INCY- Human transferase HTFS-14, SEQ ID NO:14.	1698	99
1542	gi165524 96	Homo sapiens	cDNA FLJ32390 fis, clone SKMUS1000177, weakly similar to PROTEIN-L- ISOASPARTATE O-	1698	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			METHYLTRANSFERASE (EC 2.1.1.77).		
1542	gi113231 92	Homo sapiens	Human DNA sequence from clone RP5-1022E24 on chromosome 20 Contains the 3' end of the OPRL1 gene encoding Opiate receptor-like 1 protein, the GPR8 gene encoding a G protein-coupled receptor, the KIAA0835 gene encoding a protein similar to the myelin transcription factor 1 (MYT1), a novel gene, 7 CpG islands, ESTs, STSs and GSSs, complete sequence.	1156	69
1543	AAB946 44	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15536.	1941	100
1543	gi146258 75	Homo sapiens	mRNA for putative autophagy- related cysteine endopeptidase (AUTL1 gene).	1941	100
1543	gi140426 98	Homo sapiens	cDNA FLJ14867 fis, clone PLACE1002319.	1941	100
1544	gi996720 4	Macaca fascicularis	hypothetical protein	2621	100
1544	AAB883 51	Homo sapiens	HELI- Human membrane or secretory protein clone PSEC0076.	2616	99
1544	gi142725 56	Homo sapiens	unnamed protein product	2616	99
1545	gi120054 29	Homo sapiens	homeobox-containing transcripton factor HOXD1 (HOXD1) mRNA, complete cds.	1726	100
1545	gil10956 18	Homo sapiens	HOX D1 protein (HOXD1) gene, complete cds.	1726	100
1545	gi156802 45	Homo sapiens	homeo box D1, clone MGC:23144 IMAGE:4869019, mRNA, complete cds.	1718	99
1546	AAB953 66	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17677.	2511	100
1546	gi140425 38	Homo sapiens	cDNA FLJ14773 fis, clone NT2RP3004566, weakly similar to ZINC FINGER PROTEIN 84.	2511	100
1546	gi104386 30	Homo sapiens	cDNA: FLJ22301 fis, clone HRC04777.	2511	100
1547	gi155596 28	Homo sapiens	mitochondrial ribosomal protein S5, clone MGC:20735 IMAGE:4561399, mRNA, complete cds.	2262	99
1547	gi136208 81	Homo sapiens	MRPS5 mRNA for mitochondrial ribosomal protein S5, complete cds.	2262	99
1547	gi136208 83	Mus musculus	mitochondrial ribosomal protein S5	1821	79
1548	gi 126979 11	Homo sapiens	mRNA for KIAA1683 protein, partial cds.	1772	72
1548	gi120532 39	Homo sapiens	mRNA; cDNA DKFZp434O194 (from clone DKFZp434O194); complete cds.	1690	49

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1548	AAU174 84	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 1049.	1659	100
1549	gi104381 66	Homo sapiens	cDNA: FLJ21945 fis, clone HEP04702.	3738	99
1549	gi104419 56	Homo sapiens	clone PP384 unknown mRNA.	1196	99
1549	AAU222 52	Homo sapiens	HUMA- Human cardiovascular system antigen polypeptide SEQ ID No 1026.	480	98
1550	gi 128524 81	Mus musculus	putative	1049	56
1550	AAB189 66	Homo sapiens	INCY- Amino acid sequence of a human transmembrane protein.	922	89
1550	AAB427 81	Homo sapiens	CURA- Human ORFX ORF2545 polypeptide sequence SEQ ID NO:5090.	513	100
1551	gi633040 1	Homo sapiens	mRNA for KIAA1199 protein, partial cds.	2521	97
1551	AAY257 93	Homo sapiens	HUMA- Human secreted protein fragment encoded from gene 12.	1919	96
1551	gi851818 8	Homo sapiens	mRNA full length insert cDNA clone EUROIMAGE 2155535.	1352	95
1552	AAB944 17	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15016.	1027	99
1552	gi104348 35	Homo sapiens	cDNA FLJ13018 fis, clone NT2RP3000685.	1027	99
1552	gi128375 67	Mus musculus	putative	972	92
1553	gi159294 11	Homo sapiens	clone IMAGE:4040789, mRNA, partial cds.	1369	100
1553	AAG034 90	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 7571.	450	96
1553	gi128458 28	Mus musculus	putative	376	68
1554	gi998895 8	Homo sapiens	F-box protein FBX30 mRNA, complete cds.	1211	100
1554	gi140437 44	Homo sapiens	Similar to F-box only protein 6, clone MGC:14140 IMAGE:4054414, mRNA, complete cds.	1211	100
1554	AAB429 89	Homo sapiens	CURA- Human ORFX ORF2753 polypeptide sequence SEQ ID NO:5506.	675	99
1555	gi938026	Homo sapiens	Human mRNA for RanBP1 (Ran-binding protein 1), complete cds.	916	100
1555	AAB566 19	Homo sapiens	ROSE/ Human prostate cancer antigen protein sequence SEQ ID NO:1197.	904	99
1555	gi620083	Homo sapiens	H.sapiens mRNA for RanBP1.	904	99
1556	gi133832 65	Homo sapiens	mRNA for actin related protein, complete cds.	1962	100
1556	gi165500 55	Homo sapiens	cDNA FLJ30784 fis, clone FEBRA2000881, moderately similar to ACTIN 6.	1950	99
1556	gi139383	Homo sapiens	clone MGC:15664	1949	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	19		IMAGE:3349184, mRNA, complete cds.		
1557	gi623545	Oryctolagus cuniculus	sarcoplasmic reticulum glycoprotein	2366	96
1557	gi164861	Oryctolagus cuniculus	sarcolumenin precursor	2307	97
1557	gi496325	Gallus gallus	53 kDa glycoprotein	2160	87
1558	AAB946 41	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15526.	1379	98
1558	AAG644 03	Homo sapiens	SHAN- Human paneth cell enhanced expression-like protein.	1379	98
1558	AAM940 28	Homo sapiens	HELI- Human stomach cancer expressed polypeptide SEQ ID NO 126.	1379	98
1559	gi874531 5	Homo sapiens	putative GTP-binding protein (GTPBP2) mRNA, partial cds.	2742	99
1559	gi135610 07	Homo sapiens	Human DNA sequence from clone RP11-22I24 on chromosome 6 Contains the 3' part of the POLH gene for DNA directed polymerase eta and the GTPBP2 gene for GTP binding protein 2, ESTs, STSs, GSSs and a CpG island, complete sequence.	. 2742	99
1559	gi874531 7	Mus musculus	putative GTP-binding protein	2731	99
1560	AAG026 53	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 6734.	425	100
1560	gi150804 59	Homo sapiens	clone MGC:9017 IMAGE:3860059, mRNA, complete cds.	425	100
1560	gi233792 0	Homo sapiens	Human syntaxin 7 mRNA, complete cds.	421	98
1561	AAB944 68	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15128.	4375	99
1561	gi104349 44	Homo sapiens	cDNA FLJ13089 fis, clone NT2RP3002108, weakly similar to DEC1 PROTEIN.	4375	99
1561	gi730058 1	Drosophila melanogaster	CG4845 gene product	1083	31
1562	AAU121 77	Homo sapiens	GETH Human PRO305 polypeptide sequence.	226	100
1562	AAY647 34	Homo sapiens	GEST Human 5' EST related polypeptide SEQ ID NO:895.	226	100
1562	AAY814 87	Homo sapiens	FUJY Human cathepsin L2.	226	100
1563	gi120527 26	Homo sapiens	mRNA; cDNA DKFZp761N0411 (from clone DKFZp761N0411); complete cds.	2381	99
1563	gi142509 20	Homo sapiens	mRNA for SMC6 protein.	2374	99
1563	gi142509 22	Mus musculus	SMC6 protein	2163	88
1564	gi149705	Homo sapiens	mRNA for WDR9 protein	524	98

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	62		(WDR9 gene), form A.		1002113
1564	gi149705 91	Mus musculus	WDR9 protein, form A	363	79
1564	AAB344 87	Homo sapiens	HUMA- Human secreted protein BLAST search protein SEQ ID NO: 105.	169	52
1565	gi680832 9	Homo sapiens	mRNA; cDNA DKFZp434K0410 (from clone DKFZp434K0410); partial cds.	787	100
1565	AAB931 88	Homo sapiens	HELI- Human protein sequence SEQ ID NO:12140.	528	51
1565	AAB927 02	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11102.	528	51
1566	gi128038 41	Homo sapiens	Similar to retinoic acid induced 12, clone MGC:3373 IMAGE:3629369, mRNA, complete cds.	1576	99
1566	AAB267 93	Homo sapiens	UYFU- Human melanoma growth related factor-1 amino acid sequence.	1199	95
1566	gi132777 02	Mus musculus	retinoic acid induced 12	1182	75
1567	AAB534 05	Homo sapiens	HUMA- Human colon cancer antigen protein sequence SEQ ID NO:945.	1288	93
1567	gi29587	Homo sapiens	Human mRNA for carbonic anhydrase II (EC 4.2.1.1).	1288	93
1567	gi179795	Homo sapiens	Human carbonic anhydrase II mRNA, complete cds.	1288	93
1568	gi182146	Homo sapiens	eosinophil peroxidase (EPP) gene, exon 12 and complete cds.	3757	100
1568	gi31183	Homo sapiens	Human mRNA for eosinophil peroxidase.	3549	97
1568	gi177737 8	Mus musculus	eosinophil peroxidase	3376	89
1569	AAB941 83	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14500.	2405	100
1569	gi104342 15	Homo sapiens	cDNA FLJ12618 fis, clone NT2RM4001666, weakly similar to HYPOTHETICAL 48.6 KD PROTEIN IN ALPA-GABP INTERGENIC REGION.	2405	100
1569	gi135439 55	Homo sapiens	Similar to hypothetical protein FLJ12618, clone MGC:12994 IMAGE:3504996, mRNA, complete cds.	2082	94
1570	AAB939 04	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13862.	2499	99
1570	gi142862 14	Homo sapiens	hypothetical protein FLJ12150, clone MGC:15043 IMAGE:3634992, mRNA, complete cds.	2499	99
1570	gi 104335 59	Homo sapiens	cDNA FLJ12150 fis, clone MAMMA1000422.	2499	99
1571	gi768460 5	Mus musculus	smoothelin B	640	54
1571	gi768460	Mus musculus	smoothelin A	640	54

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	4	· · · · · · · · · · · · · · · · · · ·		 	lucitity
1571	gi754725 8	Mus musculus	smoothelin small isoform S1	640	54
1572	AAB950 33	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16784.	1174	100
1572	gi 104334 42	Homo sapiens	cDNA FLJ12056 fis, clone HEMBB1002050.	1174	100
1572	gi530876	Chlamydomonas reinhardtii	amino acid feature: Rod protein domain, aa 266 468; amino acid feature: globular protein domain, aa 32 265	142	26
1573	gi128572 47	Mus musculus	putative	2111	92
1573	gi107279 09	Drosophila melanogaster	CG6169 gene product	688	48
1573	gi238891 1	Schizosaccharom yces pombe	hypothetical PSU1-like protein	585	47
1574	AAB419 54	Homo sapiens	CURA- Human ORFX ORF1718 polypeptide sequence SEQ ID NO:3436.	1765	97
1574	AAB427 73	Homo sapiens	CURA- Human ORFX ORF2537 polypeptide sequence SEQ ID NO:5074.	1134	93
1574	gi175122 54	Homo sapiens	hypothetical protein FLJ21156, clone MGC:29459 IMAGE:5020837, mRNA, complete cds.	1089	100
1575	AAY400 90	Homo sapiens	HUMA- Peptide sequence derived from a human secreted protein.	918	98
1575	gi128546 39	Mus musculus	putative	443	69
1575	gi170661 07	Homo sapiens	partial TTN gene for titin.	86	25
1576	gi104384 73	Homo sapiens	cDNA: FLJ22184 fis, clone HRC00983.	3291	99
1576	gi102417 12	Homo sapiens	mRNA; cDNA DKFZp761K0816 (from clone DKFZp761K0816).	1238	99
1576	gi600118	Zea mays	extensin-like protein	666	33
1577	gi165492 61	Homo sapiens	cDNA FLJ30107 fis, clone BNGH41000198, weakly similar to TETRACYCLINE RESISTANCE PROTEIN, CLASS E.	1453	100
1577	gi147150 55	Homo sapiens	Similar to RIKEN cDNA 1110002C08 gene, clone MGC:9564 IMAGE:3872267, mRNA, complete cds.	1453	100
1577	gi128338 45	Mus musculus	putative	1339	90
1578	gi104376 69	Homo sapiens	cDNA: FLJ21551 fis, clone COL06266.	1925	99
1578	AAE0179 1	Homo sapiens	HUMA- Human gene 22 encoded secreted protein HOHDF66, SEQ ID NO:112.	1840	99
1578	AAB417	Homo sapiens	CURA- Human ORFX	1473	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	11		ORF1475 polypeptide sequence SEQ ID NO:2950.		
1579	gi143279 15	Homo sapiens	clone MGC:11186 IMAGE:3844322, mRNA, complete cds.	3446	100
1579	gi140431 03	Homo sapiens	clone MGC:15388 IMAGE:3350378, mRNA, complete cds.	3446	100
1579	AAB947 22	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15741.	3439	99
1580	gi134461 90	Homo sapiens	Human DNA sequence from clone RP4-717M23 on chromosome 20 Contains the gene encoding a CRP2 binding protein (CRP2BP), a pseudogene, ESTs, STSs, GSSs and CpG islands, complete sequence.	3955	97
1580	gi140431 03	Homo sapiens	clone MGC:15388 IMAGE:3350378, mRNA, complete cds.	3952	97
1580	gi143279 15	Homo sapiens	clone MGC:11186 IMAGE:3844322, mRNA, complete cds.	3281	96
1581	gi165516 10	Homo sapiens	cDNA FLJ31697 fis, clone NT2RI2005851, weakly similar to PLECTIN.	1911	99
1581	AAM664 35	Homo sapiens	MOLE- Human bone marrow expressed probe encoded protein SEQ ID NO: 26741.	588	100
1581	AAM540 44	Homo sapiens	MOLE- Human brain expressed single exon probe encoded protein SEQ ID NO: 26149.	588	100
1582	AAU204 43	Homo sapiens	HUMA- Human secreted protein, Seq ID No 435.	940	94
1582	AAM937 13	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3654.	756	100
1582	gi171490 39	Homo sapiens	MTO1-like protein gene, complete cds; nuclear gene for mitochondrial product.	756	100
1583	ABB1222 0	Homo sapiens	HYSE- Human peroxisomal Cadependent solute carrier homologue, SEQ:2590.	344	100
1583	gi128536 85	Mus musculus	putative	168	52
1583	AAM800 61	Homo sapiens	HYSE- Human protein SEQ ID NO 3707.	165	55
1584	gi143491 25	Homo sapiens	mRNA for alpha2- glucosyltransferase (ALG10 gene).	716	93
1584	gi351345 1	Rattus norvegicus	potassium channel regulator 1	681	90
1584	AAB257 15	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 3 SEQ ID NO:104.	617	93
1585	gi126979 39	Homo sapiens	mRNA for KIAA 1697 protein, partial cds.	1904	100

SEQ ID	Hit 1D	Speicles	Description	S score	Percent identity
1585	gi104402 49	Homo sapiens	cDNA: FLJ23529 fis, clone LNG06042.	1897	99
1585	gi729341 5	Drosophila melanogaster	Dhc16F gene product	786	44
1586	AAZ3583 4_aa1	Homo sapiens	INCY- Human vesicle trafficking protein 2 encoding cDNA.	804	84
1586	AAB936 64	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13188.	804	84
1586	AAY499 59	Homo sapiens	INCY- Human vesicle trafficking protein 2.	804	84
1587	AAY765 61	Homo sapiens	META- Human ovarian tumor EST fragment encoded protein 57.	623	92
1587	gi136235 85	Homo sapiens	Similar to RIKEN cDNA 1500034E06 gene, clone MGC:14151 IMAGE:3690202, mRNA, complete cds.	623	92
1587	gi128586 76	Mus musculus	putative	595	88
1588	AAU206 47	Homo sapiens	HUMA- Human secreted protein, Seq ID No 639.	927	99
1588	AAU205 23	Homo sapiens	HUMA- Human secreted protein, Seq ID No 515.	927	99
1588	AAB954 32	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17854.	927	99
1589	AAB591 91	Homo sapiens	UYCO Human NADE.	293	57
1589	gi845289 4	Homo sapiens	p75NTR-associated cell death executor (NADE) mRNA, complete cds.	293	57
1589	gi189379	Homo sapiens	Human unknown protein from clone pHGR74 mRNA, complete cds.	293	57
1590	AAG017 16	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5797.	894	99
1590	AAY824 73	Homo sapiens	LLTL- Human APG12 protein sequence.	724	100
1590	gi411573 1	Homo sapiens	mRNA for Apg12, complete cds.	724	100
1591	AAW877 01	Homo sapiens	INCY- A human membrane fusion protein designated SYTAXI.	1357	99
1591	gi420024 1	Homo sapiens	H.sapiens gene from PAC 42616, similar to syntaxin 7.	1325	100
1591	gi147150 19	Mus musculus	Unknown (protein for MGC:6471)	1280	93
1592	AAA540 89_aa1	Homo sapiens	GETH PRO211 cDNA.	1944	87
1592	AAB530 75	Homo sapiens	GETH Human angiogenesis- associated protein PRO211, SEQ ID NO:57.	1944	87
1592	AAB612 31	Homo sapiens	MILL- Human TANGO 331 protein.	1944	87
1593	gi668159 2	Homo sapiens	HSJ2 mRNA for DnaJ homolog, complete cds.	1567	93
1593	gi128032	Homo sapiens	MRJ gene for a member of the	1567	93

SEQ	Hit ID	Speicies	Description	S score	Percent
ID	63		DNAJ protein family, clone		identity
	03		MGC:1152 IMAGE:3346070,		
			mRNA, complete cds.]
1593	AAW940	Homo sapiens	INCY- Human DnaJ-like	1516	98
	66		protein, HSPJ2.		
1594	gi 112308	Homo sapiens	mRNA for HMG-box	3096	100
	58		transcription factor TCF-3,		
1594	gi312363	Mus musculus	complete cds. TCF-3 protein	2934	95
1394	g1312303	Mus musculus	1CF-3 protein	2934	93
1594	gi142799	Xenopus laevis	T-cell factor XTCF-3	2195	77
	82	, 110.10p.ub 1.10	1 2001 100101 111 01 0		1
1595	gi163070	Homo sapiens	hypothetical protein FLJ22724,	932	100
	74	_	clone MGC:16791		
			IMAGE:3900548, mRNA,	}	1
1.505	1101000		complete cds.	020	100
1595	gi104392 25	Homo sapiens	cDNA: FLJ22724 fis, clone HSI14868.	932	100
1595	gi128543	Mus musculus	putative	618	68
1.555	96	14xus musculus	Putanto	1 0.10	00
1596	gi100472	Homo sapiens	mRNA for KIAA1577 protein,	3874	100
	29	<u> </u>	partial cds.		
1596	gi795928	Homo sapiens	mRNA for KIAA1511 protein,	3002	74
	3		partial cds.		
1596	gi104404	Homo sapiens	mRNA for FLJ00044 protein,	2010	63
1507	18	YYama aaniana	partial cds. GEST Human secreted protein	268	100
1597	AAY131 17	Homo sapiens	encoded by 5' EST SEQ ID NO:	208	100
1	17		131.		
1597	gi138164	Sulfolobus	Dehydrogenase, putative	66	43
	07	solfataricus			ļ
1597	gi151400	Sinorhizobium	HYPOTHETICAL PROTEIN	66	37
	82	meliloti		2100	1.00
1598	gi169437	Homo sapiens	mRNA for SOX7 protein.	2106	100
1598	gi165503	Homo sapiens	cDNA FLJ30994 fis, clone	2106	100
1396	14	Tionio sapiens	HLUNG1000076, highly similar	2100	100
]]	• •		to Mus musculus mRNA for]	1
]			mSox7.		_}
1598	gi132791	Homo sapiens	Similar to SRY-box containing	2106	100
)	64		gene 7, clone MGC:10895		
			IMAGE:3622936, mRNA,		
1500	-1176461	TToma comisma	complete cds.	1111	97
1599	gi176461 46	Homo sapiens	B lymphocyte activation-related protein mRNA, complete cds.	1111	97
1599	gi120062	Homo sapiens	NPD017 mRNA, complete cds.	1111	97
	23		land the state of		[
1599	gi151267	Homo sapiens	hypothetical protein FLJ21174,	1105	97 ·
j	45	•	clone MGC:5372		
1			IMAGE:3445403, mRNA,]
<u> </u>			complete cds.	1004	1
1600	gi143288	Homo sapiens	CUB domain containing protein	4394	100
	79		1 (CDCP1) mRNA, complete cds.		j
1600	gi104395	Homo sapiens	cDNA: FLJ22969 fis, clone	4385	99
	15	1101110 oaptons	KAT10759.	.555	-
1600	AAY914	Homo sapiens	HUMA- Human secreted protein	3633	98

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	56		sequence encoded by gene 6 SEQ ID NO:129.		
1601	gi120528 46	Homo sapiens	mRNA; cDNA DKFZp564K2464 (from clone DKFZp564K2464); complete cds.	2152	100
1601	gi126527 23	Homo sapiens	clone MGC:3295 IMAGE:3508204, mRNA, complete cds.	2035	100
1601	AAW790 88	Homo sapiens	GEMY Human secreted protein bi129 2.	1115	100
1602	gi508161 0	Mus musculus	huntington yeast partner C	4295	94
1602	gi156368 98	Gallus gallus	formin binding protein 11- related protein	2507	55
1602	gi508160 8	Mus musculus	formin binding protein 11	2505	54
1603	gi508161 0	Mus musculus	huntington yeast partner C	4046	90
1603	gi680803 8	Homo sapiens	mRNA; cDNA DKFZp434H2121 (from clone DKFZp434H2121); partial cds.	2341	100
1603	gi156368 98	Gallus gallus	formin binding protein 11- related protein	2339	52
1604	AAB950 53	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16855.	680	100
1604	gi104335 25	Homo sapiens	cDNA FLJ12122 fis, clone MAMMA1000129.	680	100
1604	AAE0609 6	Homo sapiens	HÚMA- Human gene 56 encoded secreted protein HRABA80, SEQ ID NO:158.	151	48
1605	AAB943 09	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14777.	2318	99
1605	gi104345 01	Homo sapiens	cDNA FLJ12800 fis, clone NT2RP2002079, weakly similar to HISTONE H1, GONADAL.	2318	99
1605	gi173912 25	Mus musculus	Similar to hypothetical protein FLJ12800	1515	70
1606	AAG645 02	Homo sapiens	UYFU- Human EPIP2 (endometrial progesterone- induced protein).	1914	100
1606	gi173902 89	Homo sapiens	Similar to phosphoserine aminotransferase, clone MGC:9290 IMAGE:3883843, mRNA, complete cds.	1914	100
1606	gi134360 74	Homo sapiens	Similar to phosphoserine aminotransferase, clone MGC:10519 IMAGE:3938160, mRNA, complete cds.	1914	100
1607	gi532680 2	Homo sapiens	phosphoserine aminotransferase (PSA) mRNA, complete cds.	1673	100
1607	AAG645 02	Homo sapiens	UYFU- Human EPIP2 (endometrial progesterone- induced protein).	1616	87
1607	gi173902 89	Homo sapiens	Similar to phosphoserine aminotransferase, clone MGC:9290 IMAGE:3883843,	1616	87

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			mRNA, complete cds.		
1608	gi134477 61	Homo sapiens	cystatin and DUF19 domain- containing protein 1 (CSDUFD1) mRNA, complete cds.	736	100
1608	AAG745 13	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:5277.	570	100
1608	AAB937 98	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13564.	281	47
1609	gi104402 30	Homo sapiens	cDNA: FLJ23514 fis, clone LNG04628.	2005	100
1609	gi128529 73	Mus musculus	putative	1509	69
1609	gi124077 49	Arabidopsis thaliana	initiation factor 3a	138	22
1610	AAY649 94	Homo sapiens	GEST Human 5' EST related polypeptide SEQ ID NO:1155.	372	100
1610	AAM008 52	Homo sapiens	HYSE- Human bone marrow protein, SEQ ID NO: 215.	69	39
1610	gi332565	Orf virus	ORF2	68	42
1611	gi 104397 05	Homo sapiens	cDNA: FLJ23121 fis, clone LNG07996.	3137	100
1611	AAB949 96	Homo sapiens	HELÍ- Human protein sequence SEQ ID NO:16625.	1618	99
1611	gi104332 57	Homo sapiens	cDNA FLJ11889 fis, clone HEMBA1007251, weakly similar to Homo sapiens F-box protein FBX29 (FBX29) mRNA.	1618	99
1612	AAB952 34	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17375.	3584	100
1612	gi104346 74	Homo sapiens	cDNA FLJ12911 fis, clone NT2RP2004425, highly similar to Mus musculus axotrophin mRNA.	3584	100
1612	gi505203	Mus musculus	axotrophin	2983	85
1613	gi965095	Mus musculus	beta-1,6-N- acetylglucosaminyltransferase B	1254	73
1613	AAV160 00_aa1	Homo sapiens	LJOL- Human beta-1,6-N- acetylglucosaminyltransferase (IGnT) encoding cDNA.	1044	65
1613	AAQ892 01 aa1	Homo sapiens	LJOL- I-branching enzyme cDNA.	1044	65
1614	gi100473	Homo sapiens	mRNA for KIAA1617 protein, partial cds.	4792	100
1614	gi663535 3	Homo sapiens	RU1 (RU1) mRNA, complete cds.	2467	55
1614	gi157790 95	Homo sapiens	Similar to RU1, clone MGC:3342 IMAGE:3029598, mRNA, complete cds.	2467	55
1615	gi468069 3	Homo sapiens	CGI-27 protein mRNA, complete cds.	1414	92
1615	gi175117 62	Homo sapiens	CGI-27 protein, clone MGC:31852 IMAGE:4851517, mRNA, complete cds.	1414	92
1615	gi170463	Homo sapiens	C21 orf19-like protein mRNA,	1414	92

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	03		complete cds.		
1616	gi100472 69	Homo sapiens	mRNA for KIAA1597 protein, partial cds.	4638	99
1616	gi136470 69	Mus musculus	synaptotagmin-like protein 2-a delta 2S-III	3717	81
1616	gi136470 09	Mus musculus	synaptotagmin-like protein 2-a	3666	77
1617	AAM937 72	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3778.	1945	98
1617	ABB1173	Homo sapiens	HYSE- Human granuphilin-a homologue, SEQ ID NO:2101.	1945	98
1617	gi159302 18	Homo sapiens	synaptotagmin-like 2, clone MGC:9588 IMAGE:3887570, mRNA, complete cds.	1945	98
1618	gi776873 9	Homo sapiens	genomic DNA, chromosome 21q, section 89/105.	3747	100
1618	gi128573 81	Mus musculus	putative	1233	78
1618	gi488438 6	Homo sapiens	mRNA; cDNA DKFZp586F0422 (from clone DKFZp586F0422); partial cds.	870	80
1619	AAR225 46	Homo sapiens	NEUR- Truncated Dopamine D1 receptor encoded by pseudogene clone GL-39.	1157	93
1619	AAR210 82	Homo sapiens	NEUR- Dopamine D1 receptor encoded by clone GL-30.	1028	85
1619	gi32049	Homo sapiens	Human HD5DR gene for D5 dopamine receptor.	1028	85
1620	AAE1032 9	Homo sapiens	INCY- Human transporter and ion channel-6 (TRICH-6) protein.	1339	92
1620	AAM258 77	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1392.	1284	100
1620	gi128565 98	Mus musculus	putative	382	64
1621	AAB942 78	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14707.	1465	100
1621	gi135434 48	Homo sapiens	hypothetical protein FLJ12750, clone MGC:4691 IMAGE:3533384, mRNA, complete cds.	1465	100
1621	gi104344 28	Homo sapiens	cDNA FLJ12750 fis, clone NT2RP2001168, weakly similar to VERPROLIN.	1465	100
1622	AAY026 69	Homo sapiens	HUMA- Human secreted protein encoded by gene 20 clone HMKAH10.	288	100
1622	gi751042 1	Caenorhabditis elegans	hypothetical protein Y6G8.1 - Caenorhabditis elegans >	66	37
1623	AAB953 93	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17745.	795	100
1623	gi104352 17	Homo sapiens	cDNA FLJ13265 fis, clone OVARC1000937.	795	100
1623	AAB570 19	Homo sapiens	ROSE/ Human prostate cancer antigen protein sequence SEQ ID NO:1597.	275	91
1624	AAG892	Homo sapiens	GEST Human secreted protein,	936	100

SEQ	Hit ID	Speicies	Description	S score	Percent
ID					identity
	81		SEQ ID NO: 401.		
1624	AAU159 32	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 885.	936	100
1624	gi104391 93	Homo sapiens	cDNA: FLJ22700 fis, clone HSI12073.	936	100
1625	gi128579 64	Mus musculus	putative	1533	86
1625	gi102413 97	Homo sapiens	Human DNA sequence from clone RP3-336K20 on chromosome 6 Contains parts of 2 genes for novel proteins, ESTs, STSs and GSSs, complete sequence.	964	100
1625	gi165523 03	Homo sapiens	cDNA FLJ32234 fis, clone PLACE6004687.	721	97
1626	gi104381 58	Homo sapiens	cDNA: FLJ21940 fis, clone HEP04512.	3307	99
1626	AAG737 12	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:4476.	455	98
1626	gi104406 14	Oryza sativa	putative ATP-dependent RNA helicase	452	32
1627	gi104378 37	Homo sapiens	cDNA: FLJ21687 fis, clone COL09385.	1466	100
1627	gi618017 8	Homo sapiens	transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel alpha-1 subunit gene, partial cds, complete sequence.	1182	98
1627	ABB1156	Homo sapiens	HYSE- Human JM10 protein homologue, SEQ ID NO:1931.	947	100
1628	AAM252 27	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:742.	2069	100
1628	AAB853 62	Homo sapiens	INCY- Human phosphatase (PP) (clone ID 2522707CD1).	2021	100
1628	gi150805 05	Homo sapiens	Similar to RIKEN cDNA 5730568A12 gene, clone MGC:17651 IMAGE:3857480, mRNA, complete cds.	1907	100
1629	gi656284 5	Rattus norvegicus	type A/B hnRNP p40	1661	91
1629	gi337727 9	Rattus norvegicus	AIF-C1	1654	91
1629	gi181427 4	Homo sapiens	Human apobec-1 binding protein 1 mRNA, complete cds.	1631	92
1630	AAY360 83	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 468.	430	98
1630	AAG005 83	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 4664.	414	100
1630	gi358259	Cnemidophorus	NADH dehydrogenase subunit 4	66	37

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	4	tigris			
1631	AAB102 84	Homo sapiens	GEMY Human fetal placenta protein fragment AC175_2i.	852	94
1631	gi398346 3	Homo sapiens	microfibril-associated glycoprotein 2 (MAGP2) gene, exon 10 and complete cds.	852	94
1631	gi135434 86	Homo sapiens	Microfibril-associated glycoprotein-2, clone MGC:14490 IMAGE:4247343, mRNA, complete cds.	852	94
1632	gi161984 56	Homo sapiens	Similar to RIKEN cDNA 0610040E02 gene, clone MGC:17973 IMAGE:3919892, mRNA, complete cds.	1339	99
1632	AAY026 61	Homo sapiens	HUMA- Human secreted protein encoded by gene 12 clone HFTCU19.	1142	99
1632	gi167406 89	Mus musculus	RIKEN cDNA 0610040E02 gene	1059	77
1633	AAB530 94	Homo sapiens	GETH Human angiogenesis- associated protein PRO826, SEQ ID NO:158.	510	100
1633	AAB509 16	Homo sapiens	GETH Human PRO826 protein.	510	100
1633	AAB652 04	Homo sapiens	GETH Human PRO826 (UNQ467) protein sequence SEQ ID NO:201.	510	100
1634	AAB530 94	Homo sapiens	GETH Human angiogenesis- associated protein PRO826, SEQ ID NO:158.	413	85
1634	AAB509 16	Homo sapiens	GETH Human PRO826 protein.	413	85
1634	AAB652 04	Homo sapiens	GETH Human PRO826 (UNQ467) protein sequence SEQ ID NO:201.	413	85
1635	gi104390 08	Homo sapiens	cDNA: FLJ22573 fis, clone HSI02387.	1937	100
1635	AAM878 76	Homo sapiens	HUMA- Human immune/haematopoietic antigen SEQ ID NO:15469.	187.	45
1635	gi133464 3	Xenopus laevis	APEG precursor protein	93	37
1636	gi104390 08	Homo sapiens	cDNA: FLJ22573 fis, clone HSI02387.	578	100
1636	AAM878 76	Homo sapiens	HUMA- Human immune/haematopoietic antigen SEQ ID NO:15469.	155	94
1636	gi394136 5	Homo sapiens	I-REL gene, exon 12 and complete cds.	79	37
1637	AAM938 71	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3980.	3761	99
1637	gi143311 31	Homo sapiens	scinderin mRNA, complete cds.	3749	99
1637	AAR804 81	Homo sapiens	NAKA/ Recombinant human adseverin.	3527	92
1638	gi104369 70	Homo sapiens	cDNA: FLJ20991 fis, clone CAE02103.	239	67

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1638	gi646024 0	Deinococcus radiodurans	DNA-binding response regulator	86	37
1638	gi167548 77	Cyprinus carpio	Smad4 type4	79	27
1639	AAY849 01	Homo sapiens	INCY- A human proliferation and apoptosis related protein.	2821	95
1639	gi120532 25	Homo sapiens	mRNA; cDNA DKFZp434P2235 (from clone DKFZp434P2235); complete cds.	2806	95
1639	gi37330	Homo sapiens	H.sapiens mRNA for tre oncogene (clone 210).	2053	78
1640	AAY849 01	Homo sapiens	INCY- A human proliferation and apoptosis related protein.	2846	96
1640	gi120532 25	Homo sapiens	mRNA; cDNA DKFZp434P2235 (from clone DKFZp434P2235); complete cds.	2834	95
1640	gi37330	Homo sapiens	H.sapiens mRNA for tre oncogene (clone 210).	2050	77
1641	gi139362 85	Mus musculus	TRH4	1522	77
1641	gi 128455 40	Mus musculus	putative	1520	77
1641	AAU007 82	Homo sapiens	INCY- Human apoptosis protein, APOP-2.	1345	98
1642	gi172253 31	Homo sapiens	MY0876G05 protein (MY876) mRNA, complete cds.	1209	100
1642	gi120020 42	Homo sapiens	brain my048 protein mRNA, complete cds.	1209	100
1642	gi 176461 46	Homo sapiens	B lymphocyte activation-related protein mRNA, complete cds.	911	78
1643	gi104373 07	Homo sapiens	cDNA: FLJ21240 fis, clone COL01132.	2090	100
1643	AAB747 30	Homo sapiens	INCY- Human membrane associated protein MEMAP-36.	856	42
1643	AAY949 06	Homo sapiens	GEMY Human secreted protein clone rb649_3 protein sequence SEQ ID NO:18.	853	42
1644	AAY144 48	Homo sapiens	HUMA- Human secreted protein encoded by gene 38 clone HFGAH44.	316	100
1645	gi103344 43	Homo sapiens	Human DNA sequence from clone RP11-291L22 on chromosome 10 Contains the 3' end of the HSD17B7 (hydroxysteroid (17-beta) dehydrogenase 7) gene, part of a gene similar to CDC10 (cell division cycle 10, S. cerevisiae, homolog), part of a novel gene, a novel pseudogene, STSs, GSSs and a CpG Island, complete sequence.	256	100
1645	gi560623	human, fetal lung, mRNA, 2314 nt]. [Homo	hCDC10=CDC10 homolog	236	72

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
,		sapiens		1	<u> </u>
1645	gi286460 6	Mus musculus	CDC10	236	72
1646	AAB189 69	Homo sapiens	INCY- Amino acid sequence of a human transmembrane protein.	1707	95
1646	AAB495 04	Homo sapiens	HUMA- Clone HNTMH27.	1370	94
1646	gi163075 93	Mus musculus	RIKEN cDNA 2210021G21 gene	1325	90
1647	gi100472 31	Homo sapiens	mRNA for KIAA1578 protein, partial cds.	2083	95
1647	gi684119 4	Homo sapiens	HSPC272	281	81
1647	gi108003 75	Caenorhabditis elegans	Hypothetical protein Y67D8C.5	192	21
1648	gi143493 55	Homo sapiens	hypothetical protein FLJ23323, clone MGC:14873 IMAGE:3948222, mRNA, complete cds.	1771	100
1648	gi104399 69	Homo sapiens	cDNA: FLJ23323 fis, clone HEP12456.	1771	100
1648	gi128525 02	Mus musculus	putative	1540	65
1649	AAY413 60	Homo sapiens	HUMA- Human secreted protein encoded by gene 53 clone HJPAD75.	490	100
1649	AAM244 06	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1931.	335	100
1649	AAY414 70	Homo sapiens	HUMA- Fragment of human secreted protein encoded by gene 53.	84	100
1650	AAY413 60	Homo sapiens	HUMA- Human secreted protein encoded by gene 53 clone HJPAD75.	267	63
1650	AAM244 06	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1931.	199	90
1650	AAY414 70	Homo sapiens	HUMA- Fragment of human secreted protein encoded by gene 53.	84	100
1651	gi165503 12	Homo sapiens	cDNA FLJ30993 fis, clone HLUNG1000064, weakly similar to KARYOGAMY PROTEIN KAR4.	2449	100
1651	gi163068 92	Homo sapiens	clone MGC:2902 IMAGE:3010654, mRNA, complete cds.	2449	100
1651	gi139385 95	Homo sapiens	Similar to CG7818 gene product, clone MGC:4531 IMAGE:3010654, mRNA, complete cds.	2449	100
1652	AAG671 58	Homo sapiens	MILL- Amino acid sequence of a human 20685 transporter polypeptide.	1586	100
1652	gi132741 22	Homo sapiens	Human DNA sequence from clone RP1-55C23 on chromosome 6q22.3-23.3 Contains the VNN1 and VNN2	1586	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			genes for vanin 1 and 2, the gene for vanin 3 (VNN3), a HLF (hepatic leukemia factor) pseudogene, a CCNG1 (cyclin		
			G1) pseudogene, the 3' part of a novel gene, ESTs, GSSs, and STSs, complete sequence.		
1652	gi157958 17	Homo sapiens	unnamed protein product	1586	100
1653	AAB541 63	Homo sapiens	HUMA- Human pancreatic cancer antigen protein sequence SEQ ID NO:615.	322	63
1653	gi180886	Homo sapiens	Human colipase mRNA, complete cds.	322	63
1653	gi173897 64	Homo sapiens	colipase, pancreatic, clone MGC:23801 IMAGE:4251084, mRNA, complete cds.	322	63
1654	AAU171 98	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 763.	1359	100
1654	gi159874 93	Homo sapiens	tumor endothelial marker 6 (TEM6) mRNA, complete cds.	1359	100
1654	gi143257 70	Homo sapiens	mRNA for thyroid specific PTB domain protein, complete cds.	1359	100
1655	AAG011 18	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5199.	360	100
1655	gi154189 66	Xenopus laevis	annexin 4	66	44
1656	gi104370 31	Homo sapiens	cDNA: FLJ21034 fis, clone CAE09073.	1403	100
1656	gi163071 59	Mus musculus	Unknown (protein for IMAGE:3493084)	1060	50
1656	gi 138795 51	Mus musculus	Unknown (protein for IMAGE:3709003)	1060	50
1657	AAM800 47	Homo sapiens	HYSE- Human protein SEQ ID NO 3693.	820	91
1657	AAM790 63	Homo sapiens	HYSE- Human protein SEQ ID NO 1725.	820	89
1657	ABB1214 4	Homo sapiens	HYSE- Human HSPP-29 protein homologue, SEQ ID NO:2514.	820	91
1658	gi581382 3	Homo sapiens	SUI1 isolog mRNA, complete cds.	470	86
1658	gi450281	Homo sapiens	suilisol mRNA, complete cds.	470	86
1658	gi142505 20	Homo sapiens	putative translation initiation factor, clone MGC:15684 IMAGE:3350981, mRNA, complete cds.	470	86
1659	gi168771 87	Homo sapiens	clone MGC:17299 IMAGE:3845811, mRNA, complete cds.	1094	100
1659	AAY129 52	Homo sapiens	HUMA- Amino acid sequence of a human secreted peptide.	362	98
1659	gi239437	Cercopithecus aethiops	thromboxane A2 receptor; TBXA2R	94	29
1660	gi104389 46	Homo sapiens	cDNA: FLJ22527 fis, clone HRC12820.	1017	97
1660	gi165493	Homo sapiens	cDNA FLJ30149 fis, clone	665	90

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	12		BRACE2000280, weakly similar to MNN4 PROTEIN.		
1660	gi729920 7	Drosophila melanogaster	CG16789 gene product	519	42
1661	AAB955 72	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18221.	2231	100
1661	gi104359 27	Homo sapiens	cDNA FLJ13798 fis, clone THYRO1000124.	2231	100
1661	gi128516 20	Mus musculus	putative	1745	77
1662	AAY482 56	Homo sapiens	META- Human prostate cancerassociated protein 42.	242	75
1662	gi382085 7	Euglena spirogyra	maturase-like protein	81	30
1662	gi115596 49	Leuconostoc mesenteroides	dextransucrase Dsrb742	79	39
1663	gi140177 83	Homo sapiens	mRNA for KIAA 1783 protein, partial cds.	2287	100
1663	93	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 758.	1725	100
1663	AAY578 95	Homo sapiens	INCY- Human transmembrane protein HTMPN-19.	1634	100
1664	gi104369 92	Homo sapiens	cDNA: FLJ21007 fis, clone CAE03871.	3436	100
1664	gi137849 43	Mus musculus	Unknown (protein for MGC:11761)	2930	84
1664	gi178628 68	Drosophila melanogaster	RE01471p	308	28
1665	AAG933 18	Homo sapiens	NISC- Human protein HP10505.	465	100
1665	gi163068 68	Homo sapiens	mitochondrial ribosomal protein S21, clone MGC:2680 IMAGE:2819715, mRNA, complete cds.	465	100
1665	gi136209 11	Homo sapiens	MRPS21 mRNA for mitochondrial ribosomal protein S21, complete cds.	465	100
1666	AAU276 52	Homo sapiens	ZYMO Human protein AFP213641.	1484	100
1666	gi158624 70	Homo sapiens	unnamed protein product	1484	100
1666	AAE0607 1	Homo sapiens	HUMA- Human gene 31 encoded secreted protein HBJLF01, SEQ ID NO:133.	1284	100
1667	AAW781 32	Homo sapiens	HUMA- Human secreted protein encoded by gene 7 clone HPEBD85.	246	100
1668	AAM502 13	Homo sapiens	CURA- Human interleukin-11- like AMF7 C-terminal polypeptide.	2219	99
1668	gi165489 21	Homo sapiens	unnamed protein product	2219	99
1668	AAB948 03	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15937.	1358	100
1669	gi120533 65	Homo sapiens	mRNA; cDNA DKFZp586O0222 (from clone	2747	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
•			DKFZp586O0222); complete cds.		
1669	gi936853 8	Homo sapiens	mRNA full length insert cDNA clone EUROIMAGE 1987170.	2687	98
1669	gi996590 5	Mus musculus	synembryn	2383	86
1670	gi104402 80	Homo sapiens	cDNA: FLJ23554 fis, clone LNG09359.	3757	100
1670	gi128552 47	Mus musculus	putative	1339	64
1670	gi146026 09	Homo sapiens	hypothetical protein FLJ23554, clone MGC:14866 IMAGE:3946091, mRNA, complete cds.	1236	99
1671	gi104417 32	Homo sapiens	leucine-rich repeat-containing G protein-coupled receptor 6 (LGR6) mRNA, partial cds.	4286	99
1671	gi173828 94	Homo sapiens	unnamed protein product	3899	93
1671	gi173828 82	Mus musculus	unnamed protein product	3477	84
1672	AAB941 18	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14362.	1936	100
1672	gi104341 08	Homo sapiens	cDNA FLJ12552 fis, clone NT2RM4000712, moderately similar to Homo sapiens ubiquitin hydrolyzing enzyme I (UBHI) mRNA.	1936	100
1672	AAB958 06	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18793.	1930	99
1673	AAB482 93	Homo sapiens	UYYA Human ZF5 protein.	1407	80
1673	gi645611	Mus musculus	F-box protein FBX16	1407	80
1673	ABB1559 0	Homo sapiens	HUMA- Human nervous system related polypeptide SEQ ID NO 4247.	831	90
1674	gi100471 63	Homo sapiens	mRNA for KIAA1549 protein, partial cds.	7563	100
1674	AAM791 57	Homo sapiens	HYSE- Human protein SEQ ID NO 1819.	948	28
1674	AAM801 41	Homo sapiens	HYSE- Human protein SEQ ID NO 3787.	941	30
1675	gi167686 54	Drosophila melanogaster	HL01494p	911	39
1675	gi729229	Drosophila melanogaster	CG1271 gene product	888	38
1675	gi498199 5	Thermotoga maritima	glycerol kinase	846	38
1676	gi128528 37	Mus musculus	putative	892	69
1676	gi322823 7	Homo sapiens	UHS KerB gene.	871	71
1676	gi200962	Mus musculus	serine 1 ultra high sulfur protein	827	65
1677	gi173901 82	Homo sapiens	clone IMAGE:4797244, mRNA, partial cds.	1694	99
1677	AAY761	Homo sapiens	HUMA- Human secreted protein	863	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	77		encoded by gene 54.		
1677	AAY043 06	Homo sapiens	HUMA- Human secreted protein encoded by gene 14.	328	93
1678	gi568941 7	Homo sapiens	mRNA for KIAA1040 protein, partial cds.	2793	99
1678	gi107286 60	Drosophila melanogaster	CG8683 gene product	2736	48
1678	AAY023 67	Homo sapiens	ONOY Polypeptide identified by the signal sequence trap method.	2663	99
1679	gi104399 64	Homo sapiens	cDNA: FLJ23320 fis, clone HEP12381.	3605	99
1679	AAG744 99	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:5263.	623	95
1679	gi128306 79	Drosophila helvetica	putative transposase	220	24
1680	gi104382 77	Homo sapiens	cDNA: FLJ22028 fis, clone HEP08589.	2454	100
1680	AAB736 81	Homo sapiens	INCY- Human oxidoreductase protein ORP-14.	2337	100
1680	gi729865 9	Drosophila melanogaster	CG10721 gene product	882	43
1681	AAB943 93	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14957.	3231	99
1681	gi104347 65	Homo sapiens	cDNA FLJ12973 fis, clone NT2RP2006023.	3231	99
1681	gi128604 50	Mus musculus	putative	1177	64
1682	gi104377 48	Homo sapiens	cDNA: FLJ21615 fis, clone COL07393.	876	100
1682	gi131951 51	Homo sapiens	transcription factor TZP (TZP) mRNA, complete cds.	362	47
1682	gi102414 61	Homo sapiens	Human DNA sequence from clone RP5-I121G12 on chromosome 20 Contains the 3' end of a gene encoding the hepatocellular carcinoma-associated antigen 58 (HCA58), the SCAND1 gene encoding the domain-containing 1 protein, a novel gene, 2 CpG islands, ESTs, STSs and GSSs, complete sequence.	362	47
1683	00	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1345.	483	87
1683	gi168491 7	Homo sapiens	Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds.	483	87
1683	gi128047 05	Homo sapiens	ribosomal protein L44, clone MGC:2064 IMAGE:3353669, mRNA, complete cds.	483	87
1684	AAY079 31	Homo sapiens	HUMA- Human secreted protein fragment encoded from gene 80.	213	100
1684	gi593200	Mus musculus	neuronal apoptosis inhibitory	68	50

SEQ ID	Hit JD	Speicies	Description	S score	Percent identity
	3		protein-rs6		
1684	gi593200 8	Mus musculus	neuronal apoptosis inhibitory protein	68	50
1685	gi140304 07	Mus musculus	keratin-associated protein 16.4	380	77
1685	gi140304 09	Mus musculus	keratin-associated protein 16.5	309	64
1685	gi140304 01	Mus musculus	keratin-associated protein 16.1	302	67
1686	gi153417 94	Homo sapiens	hypothetical protein FLJ12787, clone MGC:16870 IMAGE:3048487, mRNA, complete cds.	1433	100
1686	AAB951 82	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17250.	1426	99
1686	gi 104344 81	Homo sapiens	cDNA FLJ12787 fis, clone NT2RP2001943.	1426	99
1687	AAY384 01	Homo sapiens	HUMA- Human secreted protein encoded by gene No. 16.	230	88
1687	AAB256 87	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 23 SEQ ID NO:76.	66	38
1688	gi 127449 21	Homo sapiens	tethering factor SEC34 (SEC34) mRNA, complete cds.	4223	100
1688	gi145496 69	Homo sapiens	vesicle docking protein SEC34 mRNA, complete cds.	4212	99
1688	gi152915 37	Drosophila melanogaster	GH25768p	1691	43
1689	AAB907 46	Homo sapiens	GEMY Human DF989_3 protein sequence SEQ ID 192.	545	97
1689	AAW644 71	Homo sapiens	GEMY Human secreted protein from clone DF989_3.	545	97
1689	gi282930 2	Homo sapiens	mRNA for Efs1, complete cds.	74	37
1690	AAW136 58	Homo sapiens	UYMC- Human cytidine deaminase.	657	87
1690	gi598149	Homo sapiens	cytidine deaminase (CDA) mRNA, complete cds.	657	87
1690	gi432179 3	Homo sapiens	cytidine deaminase gene, exon 4 and complete cds.	657	87
1691	gi126980 79	Homo sapiens	mRNA for KIAA1767 protein, partial cds.	4013	99
1691 1691	AAM255 78 AAE0618	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1093. HUMA- Human gene 58	3955 3521	99
	6	_	encoded secreted protein fragment, SEQ ID NO:248.		
1692	gi255901 0	Homo sapiens	chaperonin containing t-complex polypeptide 1, eta subunit (Ccth) mRNA, complete cds.	890	100
1692	gi141983 88	Mus musculus	chaperonin subunit 7 (eta)	879	98
1692	gi468504	Mus musculus	CCTeta, eta subunit of the chaperonin containing TCP-1 (CCT)	879	98
1693	gi165520 36	Homo sapiens	cDNA FLJ32028 fis, clone NTONG1000257.	918	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1693	AAB747 68	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 13 SEQ ID NO:77.	592	99
1693	AAB747 45	Homo sapiens	HUMA- Human secreted protein sequence encoded by gene 13 SEQ ID NO:54.	592	99
1694	gi100471 57	Homo sapiens	mRNA for KIAA1546 protein, partial cds.	3652	100
1694	gi126978 97	Homo sapiens	mRNA for KIAA1676 protein, partial cds.	613	39
1694	gi729228 3	Drosophila melanogaster	CG2083 gene product	534	35
1695	AAG000 78	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 4159.	164	80
1695	gi237020 2	Homo sapiens	mRNA for procollagen alpha 2(V).	164	80
1695	gi179698	Homo sapiens	Human collagen type V alpha-2 mRNA, 5' end.	164	80
1696	gi165525 96	Homo sapiens	cDNA FLJ32466 fis, clone SKNMC2000065.	2609	99
1696	gi140178 27	Homo sapiens	mRNA for KIAA1805 protein, partial cds.	2609	99
1696	gi152079 87	Macaca fascicularis	hypothetical protein	2588	99
1697	AAB928 79	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11475.	639	73
1697	AAM414 35	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 6366.	639	73
1697	AAM396 49	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 2794.	639	73
1698	AAM254 87	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1002.	586	100
1698	AAG036 67	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 7748.	582	99
1698	gi128500 50	Mus musculus	putative	557	93
1699	AAE0477 4	Homo sapiens	INCY- Human vesicle trafficking protein-17 (VETRP- 17) protein.	748	100
1699	AAB416 37	Homo sapiens	CURA- Human ORFX ORF1401 polypeptide sequence SEQ ID NO:2802.	748	100
1699	gi331995 3	Homo sapiens	mRNA for TOM1 protein.	638	82
1700	gi141401 00	Homo sapiens	OTT gene for one twenty two proteins (spliced and unspliced forms).	4797	99
1700	AAB951 11	Homo sapiens	HELI- Human protein sequence SEO ID NO:17093.	4779	99
1700	gi141613 69	Homo sapiens	putative RNA-binding motif protein 15 short form (RBM15) mRNA, complete cds, alternatively spliced.	4779	99
1701	AAB938 79	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13792.	2228	100
1701	ÅAG667 10	Homo sapiens	BIOD- Human cell growth inhibition protein 48.	2228	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1701	gi144956 27	Homo sapiens	clone MGC:15047 IMAGE:3535485, mRNA, complete cds.	2228	100
1702	AAE1178 0	Homo sapiens	INCY- Human kinase (PKIN)- 14 protein.	4186	100
1702	gi140418 17	Homo sapiens	gkip mRNA for kinase-like protein splice variant 1, complete cds.	4186	100
1702	AAB656 79	Homo sapiens	SUGE- Novel protein kinase, SEQ ID NO: 207.	4158	97
1703	AAU122 53	Homo sapiens	GETH Human PRO5774 polypeptide sequence.	440	74
1703	AAY307 34	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	258	96
1703	gi118166 9	Saccharomyces cerevisiae	Tel2p	75	24
1704	gi104397 62	Homo sapiens	cDNA: FLJ23164 fis, clone LNG09764.	3205	100
1704	gi104403 12	Homo sapiens	cDNA: FLJ23577 fis, clone LNG12640.	1755	98
1704	gi126980 85	Homo sapiens	mRNA for KIAA1770 protein, partial cds.	1614	99
1705	AAM418 06	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 6737.	1194	77
1705	AAM400 20	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 3165.	1194	77
1705	ABB1223	Homo sapiens	HYSE- Human novel protein, SEQ ID NO:2601.	1194	77
1706	gi152775 65	Mus musculus	RIKEN cDNA 2510039018 gene	3091	91
1706	gi128469 32	Mus musculus	putative	3088	91
1706	AAB430 28	Homo sapiens	CURA- Human ORFX ORF2792 polypeptide sequence SEQ ID NO:5584.	2246	95
1707	gi160411 36	Macaca fascicularis	hypothetical protein	702	92
1707	AAB652 16	Homo sapiens	GETH Human PRO1004 (UNQ488) protein sequence SEQ ID NO:227.	569	92
1707	AAY666 93	Homo sapiens	GETH Membrane-bound protein PRO1004.	569	92
1708	AAB956 36	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18369.	2429	100
1708	gi104363 57	Homo sapiens	cDNA FLJ14009 fis, clone Y79AA1002431, weakly similar to TRANSDUCIN-LIKE ENHANCER PROTEIN 2.	2429	100
1708	gi503043 9	Homo sapiens	chromosome 19, cosmid R26610, complete sequence.	1569	80
1709	gi157051 43	Mus musculus	suppressor of cytokine signalling 4	2071	86
1709	AAM007 59	Homo sapiens	HYSE- Human bone marrow protein, SEQ ID NO: 122.	1712	100
1709	AAM008 72	Homo sapiens	HYSE- Human bone marrow protein, SEQ ID NO: 348.	1215	99
1710	gi104387	Homo sapiens	cDNA: FLJ22408 fis, clone	1934	100

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
	85		HRC08416.		
1710	AAM399 17	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 3062.	837	45
1710	AAM417 03	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 6634.	836	45
1711	gi104374 28	Homo sapiens	cDNA: FLJ21343 fis, clone COL02679.	1836	100
1711	gi120531 45	Homo sapiens	mRNA; cDNA DKFZp434A0926 (from clone DKFZp434A0926); complete cds.	1388	99
1711	gi568953 7	Homo sapiens	mRNA for KIAA1100 protein, complete cds.	1261	68
1712	AAG032 54	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 7335.	438	89
1712	gi730038 3	Drosophila melanogaster	CG7671 gene product	366 ,	27
1712	AAB945 51	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15312.	309	100
1713	gi144956 58	Homo sapiens	hypothetical protein FLJ12687, clone MGC:15791 IMAGE:3504468, mRNA, complete cds.	2639	99
1713	AAB942 41	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14627.	2631	99
1713	gi104343 33	Homo sapiens	cDNA FLJ12687 fis, clone NT2RM4002532, weakly similar to PROTEIN HOM1.	2631	99
1714	AAC623 51_aa1	Homo sapiens	CELL- Nucleotide sequence of lysophosphatidic acid acyltransferase-beta.	834	100
1714	AAA392 92_aa1	Homo sapiens	CELL- Human lysophosphatidic acid acyltransferase beta encoding cDNA.	834	100
1714	AAB306 23	Homo sapiens	CELL- Amino acid sequence of lysophosphatidic acid acyltransferase-beta.	834	100
1715	AAB958 47	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18896.	675	100
1715	gi104367 63	Homo sapiens	cDNA FLJ14326 fis, clone PLACE4000247.	675	100
1715	gi165529 00	Homo sapiens	cDNA FLJ32711 fis, clone TESTI2000707, weakly similar to DOUBLESEX PROTEIN, MALE-SPECIFIC.	90	35
1716	AAB530 94	Homo sapiens	GETH Human angiogenesis- associated protein PRO826, SEQ ID NO:158.	278	100
1716	AAB509 16	Homo sapiens	GETH Human PRO826 protein.	278	100
1716	AAB652 04	Homo sapiens	GETH Human PRO826 (UNQ467) protein sequence SEQ ID NO:201.	278	100
1717	AAB949 15	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16349.	961	100
1717	gi146026 23	Homo sapiens	hypothetical protein FLJ11526, clone MGC:15059	961	100

SEQ ID	Hit ID	Speicles	Description	S score	Percent identity
			IMAGE:3937610, mRNA, complete cds.		
1717	gi104327 97	Homo sapiens	cDNA FLJ11526 fis, clone HEMBA1002555, weakly similar to Homo sapiens mSin3A associated polypeptide p30 mRNA.	961	100
1718	AAY124 39	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID NO:470.	453	94
1718	gi134771 83	Homo sapiens	Similar to hypothetical protein FLJ20859, clone MGC:12940 IMAGE:2822127, mRNA, complete cds.	453	94
1718	gi128308 10	Homo sapiens	false p73 target protein gene, complete cds.	453	94
1719	gi159289 65	Homo sapiens	hypothetical protein FLJ11354, clone MGC:22961 IMAGE:4865798, mRNA, complete cds.	3522	100
1719	AAB937 08	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13299.	3514	99
1719	gi104325 95	Homo sapiens	cDNA FLJ11354 fis, clone HEMBA1000129, weakly similar to HYPOTHETICAL HELICASE C8A4.08C IN CHROMOSOME I.	3514	99
1720	gi147173 96	Homo sapiens	potassium-dependent Na/Ca exchanger NCKX3 (SLC24A3) mRNA, partial cds.	3108	97
1720	gi125974 41	Mus musculus	K+-dependent Na/Ca exchanger	3027	94
1720	gi120003 97	Rattus norvegicus	potassium-dependent sodium- calcium exchanger NCKX3	3025	94
1721	gi150724 54	Mus musculus	von Willebrand factor A-related protein	1614	72
1721	AAB425 81	Homo sapiens	CURA- Human ORFX ORF2345 polypeptide sequence SEQ ID NO:4690.	1358	93
1721	AAB883 40	Homo sapiens	HELI- Human membrane or secretory protein clone PSEC0053.	1288	98
1722	AAE0382 2	Homo sapiens	HUMA- Human gene 5 encoded secreted protein HETKL27, SEQ ID NO: 68.	935	100
1722	AAB825 97	Homo sapiens	HUMA- Human transmembrane protein encoded by cDNA clone HNALE36.	935	100
1722	gi157064 37	Homo sapiens	clone MGC:17366 IMAGE:3860009, mRNA, complete cds.	935	100
1723	AAG665 03	Homo sapiens	BIOD- Human ATP-dependent helicase 31.	1441	100
1723	AAM257 80	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1295.	1441	100
1723	gi136763 56	Homo sapiens	clone MGC:2679 IMAGE:2819663, mRNA, complete cds.	1434	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1724	AAG673 94	Homo sapiens	SUGE- Amino acid sequence of human protein kinase SGK269.	2322	100
1724	gi104371 81	Homo sapiens	cDNA: FLJ21140 fis, clone CAS07548.	1730	100
1724	AAG673 93	Homo sapiens	SUGE- Amino acid sequence of human protein kinase SGK223.	952	46
1725	AAF2449 8_aa1	Homo sapiens	GEST Human PG-3 coding sequence.	4362	99
1725	AAB354 01	Homo sapiens	GEST Human PG-3.	4355	99
1725	gi133968 64	Homo sapiens	unnamed protein product	4355	99
1726	AAB427 84	Homo sapiens	CURA- Human ORFX ORF2548 polypeptide sequence SEQ ID NO:5096.	817	99
1726	gi122248 87	Homo sapiens	mRNA; cDNA DKFZp547H027 (from clone DKFZp547H027); complete cds.	817	99
1726	gi104384 59	Homo sapiens	cDNA: FLJ22174 fis, clone HRC00767.	817	99
1727	gi167405 66	Homo sapiens	Similar to hypothetical protein FLJ13087, clone MGC:15009 IMAGE:3536735, mRNA, complete cds.	1854	100
1727	AAB952 97	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17525.	807	95
1727	gi104349 41	Homo sapiens	cDNA FLJ13087 fis, clone NT2RP3002099.	807	95
1728	AAB940 75	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14267.	3506	97
1728	AAM939 95	Homo sapiens	HELI- Human stomach cancer expressed polypeptide SEQ ID NO 59.	3506	97
1728	gi140421 45	Homo sapiens	cDNA FLJ14550 fis, clone NT2RM2001696.	3506	97
1729	AAG008 97	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 4978.	392	93
1729	AAG008 98	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 4979.	130	100
1729	AAB425 97	Homo sapiens	CURA- Human ORFX ORF2361 polypeptide sequence SEQ ID NO:4722.	130	100
1730	ABB1161 3	Homo sapiens	HYSE- Human sorting nexin 7 homologue, SEQ ID NO:1983.	2341	100
1730	AAG741 74	Homo sapiens	HUMA- Human colon cancer antigen protein SEQ ID NO:4938.	2309	99
1730	gi488424 1	Homo sapiens	mRNA; cDNA DKFZp564F052 (from clone DKFZp564F052); partial cds.	2148	99
1731	gi134456 60	Homo sapiens	MP19 (LIM2) mRNA, complete cds, alternatively spliced.	933	100
1731	gi111775 46	Homo sapiens	LIM2 (LIM2) and natural killer group 7 (NKG7) genes, complete cds.	933	100
1731	gi134456 58	Homo sapiens	MP19ins (LIM2) mRNA, complete cds, alternatively	880	80

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			spliced.		
1732	AAB405 91	Homo sapiens	CURA- Human ORFX ORF355 polypeptide sequence SEQ ID NO:710.	1056	100
1732	gi156174 58	Oryctolagus cuniculus	Rabil family interacting protein	869 .	48
1732	AAY294 88	Homo sapiens	CORI- Human lung tumour protein LT86-7 predicted amino acid sequence.	557	87
1733	gi 104377 50	Homo sapiens	cDNA: FLJ21616 fis, clone COL07477.	1680	99
1733	gi143493 60	Homo sapiens	Similar to hypothetical protein FLJ21616, clone MGC:14941 IMAGE:3947903, mRNA, complete cds.	1443	99
1733	gi128054 73	Mus musculus	Unknown (protein for IMAGE:3490304)	1410	97
1734	gi104377 50	Homo sapiens	cDNA: FLJ21616 fis, clone COL07477.	1645	92
1734	gi143493 60	Homo sapiens	Similar to hypothetical protein FLJ21616, clone MGC:14941 IMAGE:3947903, mRNA, complete cds.	1565	99
1734	gi128054 73	Mus musculus	Unknown (protein for IMAGE:3490304)	1412	96
1735	AAB950 36	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16791.	863	100
1735	gi104334 48	Homo sapiens	cDNA FLJ12060 fis, clone HEMBB1002142.	863	100
1735	gi153419 04	Homo sapiens	clone MGC:21051 IMAGE:4476886, mRNA, complete cds.	751	99
1736	gi140437 83	Homo sapiens	clone MGC:14256 IMAGE:4129368, mRNA, complete cds.	2232	100
1736	gi104368	Homo sapiens	cDNA: FLJ20897 fis, clone ADKA03573.	2232	100
1736	gi126537 85	Homo sapiens	clone IMAGE:3349601, mRNA, partial cds.	1783	99
1737	gi142498 50	Homo sapiens	clone MGC:15062 IMAGE:2959567, mRNA, complete cds.	1535	99
1737	AAM795 39	Homo sapiens	HYSE- Human protein SEQ ID NO 3185.	1523	53
1737	AAM785 55	Homo sapiens	HYSE- Human protein SEQ ID NO 1217.	1523	53
1738	gi131833 38	Homo sapiens	caineuron 1 (CALN1) mRNA, complete cds.	881	100
1738	gi131833 40	Mus musculus	calneuron 1	880	99
1738	gi767034 4	Mus musculus	unnamed protein product	880	99
1739	gi499592 7	Xenopus laevis	p33 ringo	545	49
1739	gi102802 85	Xenopus sp.	unnamed protein product	545	49
1739	gi446879	Xenopus laevis	speedy protein	540	48

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	0				
1740	gi152815 53	Homo sapiens	solute carrier family 12 member 8 (SLC12A8) gene, partial cds.	1905	80
1740	gi172249 40	Mus musculus	cation-chloride cotransporter	1761	74
1740	gi104397 94	Homo sapiens	cDNA: FLJ23188 fis, clone LNG12038.	1613	99
1741	gi633016 3	Homo sapiens	mRNA for KIAA1161 protein, partial cds.	1137	99
1741	gi730133 3	Drosophila melanogaster	CG11909 gene product	485	41
1741	gi64404	Torpedo californica	4-acetamido-4'- isothiocyanostilbene-2, 2'- disulphonic acid-binding protein	415	38
1742	AAM678 57	Homo sapiens	MOLE- Human bone marrow expressed probe encoded protein SEQ ID NO: 28163.	1553	100
1742	AAM554 71	Homo sapiens	MOLE- Human brain expressed single exon probe encoded protein SEQ ID NO: 27576.	1553	100
1742	gi156208 49	Homo sapiens	mRNA for KIAA1895 protein, partial cds.	1553	100
1743	gi285264 0	Homo sapiens	clone 23856 unknown mRNA, partial cds.	942	99
1743	gi133252 81	Homo sapiens	hypothetical protein MGC2683, clone MGC:4313 IMAGE:2819900, mRNA, complete cds.	700	100
1743	gi126544 85	Homo sapiens	clone MGC:2683 IMAGE:2819900, mRNA, complete cds.	700	100
1744	gi139383 07	Homo sapiens	clone MGC:15626 IMAGE:3343642, mRNA, complete cds.	526	62
1744	AAB907 65	Homo sapiens	NOJI/ Human shear stress- response protein SEQ ID NO: 30.	524	64
1744	AAB621 59	Homo sapiens	NEUR- Human arginine-rich protein.	524	64
1745	gi724320 7	I-Iomo sapiens	mRNA for KIAA1413 protein, partial cds.	7273	99
1745	AAB930 57	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11862.	3014	99
1745	gi702286 1	Homo sapiens	cDNA FLJ10680 fis, clone NT2RP2006573, weakly similar to 2',3'-CYCLIC NUCLEOTIDE 3'-PHOSPHODIESTERASE (EC 3.1.4.37).	3014	99
1746	gi724320 7	Homo sapiens	mRNA for KIAA1413 protein, partial cds.	7245	98
1746	AAB930 57	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11862.	3014	99
1746	gi702286 1	Homo sapiens	cDNA FLJ10680 fis, clone NT2RP2006573, weakly similar to 2',3'-CYCLIC NUCLEOTIDE 3'-PHOSPHODIESTERASE (EC 3.1.4.37).	3014	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1747	AAE1033 0	Homo sapiens	INCY- Human transporter and ion channel-7 (TRICH-7) protein.	1520	100
1747	AAM394 22	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 2567.	694	48
1747	AAM793 97	Homo sapiens	HYSE- Human protein SEQ ID NO 3043.	694	48
1748	gi104397 44	Homo sapiens	cDNA: FLJ23151 fis, clone LNG09417.	2362	100
1748	gi 128604 56	Mus musculus	putative	1732	70
1748	gi895406 3	Arabidopsis thaliana	Contains similarity to a transposable element Tip100 protein for transposase from Ipomoea purpurea gb 4063769 and is a member of the transmembrane 4 family PF 00335.	308	24
1749	gi175299 87	Homo sapiens	oxysterol-binding protein-like protein OSBPL3 (OSBPL3) mRNA, complete cds.	4671	100
1749	gi173893 82	Homo sapiens	oxysterol binding protein-like 3, clone MGC:21526 IMAGE:3909164, mRNA, complete cds.	4671	100
1749	gi108809 73	Homo sapiens	oxysterol binding protein-related protein 3 (ORP3) mRNA, complete cds.	4671	100
1750	AAB948 79	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16094.	2813	100
1750	gi104363 38	Homo sapiens	cDNA FLJ13998 fis, clone Y79AA1002229, weakly similar to DNA CROSS-LINK REPAIR PROTEIN PSO2/SNM1.	2813	100
1750	AAB943 19	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14797.	2330	99
1751	AAB193 90	Homo sapiens	LEXI- Amino acid sequence of a human lipoxygenase protein.	3836	100
1751	gi133781 70	Homo sapiens	partial ALOXE3 gene for arachidonate lipoxygenase 3, exons 1 to 4B (and joined CDS).	3836	100
1751	gi104410 04	Homo sapiens	epidermal lipoxygenase (ALOXE3) mRNA, complete cds.	3830	99
1752	AAM932 41	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 2671.	664	95
1752	gi150302 70	Homo sapiens	clone MGC:9889 IMAGE:3868330, mRNA, complete cds.	664	95
1752	AAO102 85	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 24177.	486	78
1753	gi456191	Homo sapiens	H.sapiens mRNA for rho GDP-dissociation Inhibitor 1.	818	99
1753	gi337395	Homo sapiens	Human GDP dissociation inhibitor mRNA, complete cds.	818	99
1753	gi285979	Homo sapiens	Human rho GDI mRNA, complete cds.	818	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1754	AAQ435 49_aaI	Homo sapiens	HARD Gamma subunit of human retinal cGMP phosphodiesterase DNA.	472	100
1754	AAR931 17	Homo sapiens	HARD cGMP- phosphodiesterase gamma- subunit.	472	100
1754	AAR384 84	Homo sapiens	HARD Gamma subunit of human retinal cGMP phosphodiesterase.	472	100
1755	AAY194 46	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	590	98
1755	AAY195 99	Homo sapiens	HUMA- SEQ ID NO 317 from WO9922243.	590	98
1755	AAY196 02	Homo sapiens	HUMA- SEQ ID NO 320 from WO9922243.	137	100
1756	gi104373 93	Homo sapiens	cDNA: FLJ21313 fis, clone COL02176.	2197	99
1756	gi142503 21	Homo sapiens	hypothetical protein FLJ21313, clone MGC:16820 IMAGE:4148772, mRNA, complete cds.	2193	99
1756	gi128585 26	Mus musculus	putative	1936	86
1757	gi741435	Homo sapiens	Hox1.8 gene for homeobox protein.	478	100
1757	gi278967 2	Homo sapiens	homeobox protein A10 (HOXA10) gene, complete cds.	478	100
1757	gi155592 35	Homo sapiens	clone MGC:12859 IMAGE:4107013, mRNA, complete cds.	478	100
1758	gi189772	Homo sapiens	Human prostaglandin D2 synthase gene, exons 2 through 6 and complete cds.	872	90
1758	gi135435 68	Homo sapiens	prostaglandin D2 synthase (21kD, brain), clone MGC:14559 IMAGE:4294999, mRNA, complete cds.	872	90
1758	gi129638 79	Homo sapiens	prostaglandin D synthase mRNA, complete cds.	872	90
1759	gi298250 8	Homo sapiens	mRNA for TCR beta chain, specific for Mage 3/HLA-A2.	1296	92
1759	gi300292 5	Homo sapiens	T cell receptor beta chain (TCRBV13S1-TCRBJ2S1) mRNA, complete cds.	1286	92
1759	gi36733	Homo sapiens	H.sapiens mRNA for T-cell antigen receptor beta-chain.	1047	75
1760	AAM257 28	Homo sapiens	HYSE- Human protein sequence SEQ ID NO:1243.	667	99
1760	gi155290 64	Homo sapiens	sorting nexin 14 (SNX14) mRNA, complete cds.	667	99
1760	gi134772 73	Homo sapiens	cione MGC: 13217 IMAGE:3959086, mRNA, complete cds.	667	99
1761	AAB948 43	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16018.	1761	100
1761	gi104362 67	Homo sapiens	cDNA FLJ13955 fis, clone Y79AA1001177.	1761	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1761	gi163592 95	Mus musculus	Similar to hypothetical protein FLJ13955	1681	85
1762	AAE0205 8	Homo sapiens	HUMA- Human four disulfide core domain (FDCD)-containing protein.	1200	84
1762	gi128353 76	Mus musculus	putative	918	68
1762	gi126554 52	Homo sapiens	mRNA for keratin associated protein 4.7 (KRTAP4.7 gene).	892	68
1763	AAG674 85	Homo sapiens	LEXI- Amino acid sequence of a human transporter protein.	2391	99
1763	AAE1033 3	Homo sapiens	INCY- Human transporter and ion channel-10 (TRICH-10) protein.	2368	96
1763	gi127182 01	Homo sapiens	Human DNA sequence from clone RP11-305P22 on chromosome 20 Contains ESTs, STSs, GSSs and 7 CpG islands. Contains three novel genes and a novel gene for a helix-loop-helix DNA binding protein, complete sequence.	2243	100
1764	gi157789 48	Homo sapiens	Similar to thiamine pyrophosphokinase, clone MGC:14885 IMAGE:3622116, mRNA, complete cds.	717	100
1764	gi126672 03	Homo sapiens	thiamine pyrophosphokinase (TPK1) mRNA, complete cds.	717	100
1764	gi122489 15	Homo sapiens	hTPK1 mRNA for thiamin pyrophosphokinase, complete cds.	717	100
1765	gi104388 31	Homo sapiens	cDNA: FLJ22439 fis, clone HRC09236.	2525	99
1765	AAB422 37	Homo sapiens	CURA- Human ORFX ORF2001 polypeptide sequence SEQ ID NO:4002.	2084	99
1765	gi135592 84	Homo sapiens	Human DNA sequence from clone RP5-117516 on chromosome 20. Contains the 3' end of the gene for Ras inhibitor JC265 (Ras association (RalGDS/AF-6) domain containing protein), the 5' end of the gene encoding N-terminal acetyltransferase complex ard1 subunit, ESTs, STSs, GSSs and two CpG islands, complete sequence.	829	36
1766	gi958842 8	Homo sapiens	Human DNA sequence from clone RP5-1024N4 on chromosome 1p32.1-33. Contains the gene for a novel Sodium:solute symporter family member similar to SLC5A1 (SGLT1), a pseudogene similar to part of butyrophilin family members, a novel gene, ESTs, STSs, GSSs and a putative CpG	2858	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			island, complete sequence.		
1766	gi529056	Homo sapiens	Na+/glucose cotransporter (SGLT1) gene, exon 15 and complete cds.	1955	55
1766	gi364604 3	Homo sapiens	Human DNA sequence from PAC 127L4 on chromosome 22. Contains last exon (15) of the SLC5A1 (SGLT1) gene for solute carrier family 5 (sodium/glucose cotransporter) member 1 (High Affinity Sodium-Glucose Cotransporter). Contains ESTs and STSs, complete sequence.	1955	55
1767	AAB734 85	Homo sapiens	MILL- Human aminopeptidase 22196.	3657	99
1767	gi125836 12	Homo sapiens	mRNA for neurolysin.	3657	99
1767	gi139224 67	Homo sapiens	unnamed protein product	3657	99
1768	gi101221 38	Rattus norvegicus	SynGAP-a	6651	99
1768	gi293544 8	Rattus norvegicus	synaptic ras GTPase-activating protein p135 SynGAP	6634	99
1768	gi662458 7	Homo sapiens	Human DNA sequence from clone RP4-570F3 on chromosome 6. Contains the 5' end of the gene for the ortholog of the rat synaptic ras GTPase-activating protein p135 SynGAP, gene LOC51596 for divalent cation tolerant protein CUTA or brain acetylcholinesterase putative membrane anchor, the PHF1 gene for PHD finger protein 1, the KNSL2 gene for kinesin-like protein 2, the gene for a novel protein similar to ribosomal protein L12 (RPL12) and the gene for a novel protein similar to lysophospholipase II (LYPLA2). Contains ESTs, STSs, GSSs and four CpG islands, complete sequence.	6194	100
1769	AAB958 63	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18931.	1040	100
1769	gi173892 83	Homo sapiens	hypothetical protein FLJ14346, clone MGC:21027 IMAGE:4415420, mRNA, complete cds.	1040	100
1769	gi104367 91	Homo sapiens	cDNA FLJ14346 fis, clone THYRO1001320.	1040	100
1770	AAB945 17	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15235.	2593	99
1770	gi104351 22	Homo sapiens	cDNA FLJ13203 fis, clone NT2RP3004504, highly similar to M.musculus mRNA for CPEB	2593	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			protein.		
1770	gi126592 16	Homo sapiens	cytoplasmic polyadenylation element-binding protein short form (CPEB1) mRNA, complete cds.	2583	98
1771	AAB480 59	Homo sapiens	INCY- Human extracellular signaling molecule (EXCS) (ID 1493630CD1).	432	97
1771	AAY360 90	Homo sapiens	GEST Extended human secreted protein sequence, SEQ ID NO. 475.	420	95
1771	AAY117 68	Homo sapiens	GEST Human 5' EST secreted protein SEQ ID No: 368.	257	95
1772	AAB930 75	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11902.	2936	99
1772	gi140424 15	Homo sapiens	cDNA FLJ14710 fis, clone NT2RP3000632, weakly similar to ZINC FINGER PROTEIN 84.	2936	99
1772	gi165514 29	Homo sapiens	cDNA FLJ31551 fis, clone NT2RI2001083, moderately similar to ZINC FINGER PROTEIN 84.	1813	63
1773	AAY768 43	Homo sapiens	INCY- Human proton ATPase subunit (HPAS) protein sequence.	356	100
1773	AAY885 90	Homo sapiens	SATO/ Human tumour specific antigen amino acid sequence.	356	100
1773	AAW645 34	Homo sapiens	SAGA Human fibrosarcoma cell line HT-1080 clone HP00442 protein.	356	100
1774	gi124073 85	Homo sapiens	tripartite motif protein TRIM5 isoform gamma (TRIM5) mRNA, complete cds; alternatively spliced.	1818	99
1774	gi124073 87	Homo sapiens	tripartite motif protein TRIM5 isoform delta (TRIM5) mRNA, complete cds; alternatively spliced.	1559	99
1774	gi124073 83	Homo sapiens	tripartite motif protein TRIM5 isoform beta (TRIM5) mRNA, complete cds; alternatively spliced.	1557	100
1775	gi142506 01	Homo sapiens	hypothetical protein FLJ22056, clone MGC:3045 IMAGE:3343082, mRNA, complete cds.	2600	99
1775	gi104383 15	Homo sapiens	cDNA: FLI22056 fis, clone HEP09916.	1747	100
1775	gi729529 3	Drosophila melanogaster	CG8633 gene product	. 597	31
1776	gi104370 59	Homo sapiens	cDNA: FLJ21054 fis, clone CAS00538.	736	100
1776	gi115580 99	Mus musculus	syncoilin	653	89
1776	gi128354 05	Mus musculus	putative	552	84
1777	gi163076	I-Iomo sapiens	hypothetical protein FLJ12270,	3045	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	08		clone MGC:10176 IMAGE:3908004, mRNA, complete cds.		
1777	gi156209 05	Homo sapiens	mRNA for KIAA1923 protein, partial cds.	3042	99
1777	AAB939 45	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13963.	2190	100
1778	gi795981 9	Homo sapiens	PRO1430	299	100
1778	AAO078 40	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 21732.	75	54
1778	AAO088 70	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 22762.	73	43
1 <i>7</i> 79	AAG629 10	Homo sapiens	KLEE/ Amino acid sequence of a human xylosylytransferase (XT) isoform XT-II.	4625	100
1779	gi113222 70	Homo sapiens	mRNA for xylosyltransferase II (XT-II gene).	4625	100
1779	gi152096 53	Homo sapiens	human XT-II	4625	100
1780	gi992997 3	Macaca fascicularis	hypothetical protein	1778	96
1780	AAG787 40	Homo sapiens	BODE- Human transcriptional elongation factor IIS 24.	1162	99
1780	ABB1122 0	Homo sapiens	HYSE- Human TFIISh homologue, SEQ ID NO:1590.	653	100
1781	gi152778 46	Homo sapiens	Similar to hypothetical protein FLJ21522, clone MGC:16817 IMAGE:3853503, mRNA, complete cds.	3122	99
1781	AAB643 72	Homo sapiens	INCY- Amino acid sequence of human intracellular signalling molecule INTRA4.	3100	99
1781	gi104376 38	Homo sapiens	cDNA: FLJ21522 fis, clone COL05884.	2892	94
1782	AAB946 25	Homo sapiens	HELI- Human protein sequence SEQ ID NO:15483.	2688	100
1782	gi104353 87	Homo sapiens	cDNA FLJ13386 fis, clone PLACE1001104, weakly similar to MYOSIN HEAVY CHAIN, NON-MUSCLE.	2688	100
1782	gi165518 77	Homo sapiens	cDNA FLJ31903 fis, clone NT2RP7004260, weakly similar to MYOSIN HEAVY CHAIN, NONMUSCLE TYPE B.	2429	92
1783	gi105681 12	Homo sapiens	ALR-like protein mRNA, complete cds.	17050	100
1783	gi563007 7	Homo sapiens	PAC clone RP5-98107 from 7q34-q36, complete sequence.	9606	100
1783	AAB422 30	Homo sapiens	CURA- Human ORFX ORF1994 polypeptide sequence SEQ ID NO:3988.	9583	99
1784	AAB688 76	Homo sapiens	INCY- Human RECAP polypeptide, SEQ ID NO: 6.	1895	85
1784	gi104381 74	Homo sapiens	cDNA: FLJ21952 fis, clone HEP04970.	1895	85
1784	gi169242	Homo sapiens	hypothetical protein FLJ21952,	1862	84

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	96		clone MGC:2790 IMAGE:2960984, mRNA, complete cds.		
1785	AAU160 26	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 979.	1433	100
1785	gi140178 23	Homo sapiens	mRNA for KIAA1803 protein, partial cds.	1433	100
1785	AAG780 55	Homo sapiens	GEAT Human zinc finger domain DNA binding protein S 1-3.	1168	99
1786	AAG004 05	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 4486.	397	98
1786	AAM906 02	Homo sapiens	HUMA- Human immune/haematopoietic antigen SEQ ID NO:18195.	215	56
1786	AAM411 14	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 6045.	84	34
1787	AAG020 95	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 6176.	302	100
1787	gi665103 7	Mus musculus domesticus	similar to RNA binding protein	222	53
1787	gi128478 83	Mus musculus	putative	222	53
1788	gi979845 2	Homo sapiens	mRNA for putative capacitative calcium channel (trp7 gene).	4470	100
1788	gi532685 4	Mus musculus	receptor-activated calcium channel	4392	98
1788	gi229590 3	Homo sapiens	Human putative calcium influx channel (htrp3) mRNA, complete cds.	3529	81
1789	AAG023 37	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 6418.	377	98
1789	AAM008 75	Homo sapiens	HYSE- Human bone marrow protein, SEQ ID NO: 351.	72	31
1789	gi166669 2	Mus musculus	alpha-NAC, muscle-specific form gp220	72	34
1790	AAB733 81	Homo sapiens	NANF- Human gas vesicle protein homologue hGvpT-b.	2838	99
1790	gi120055 09	Homo sapiens	HT025 mRNA, complete cds.	2838	99
1790	gi173914 58	Homo sapiens	clone MGC:2462 IMAGE:2964737, mRNA, complete cds.	1699	99
1791	AAY994 38	Homo sapiens	GÉTH Human PRO1555 (UNQ763) amino acid sequence SEQ ID NO:338.	1300	100
1791	AAB240 37	Homo sapiens	GETH Human PRO1555 protein sequence SEQ ID NO:49.	1300	100
1791	gi126542 33	Homo sapiens	Similar to hypothetical protein, clone 1-2, clone MGC:5442 IMAGE:3449979, mRNA, complete cds.	1300	100
1792	AAB638 60	Homo sapiens	LUDW- Human prostate cancer associated antigen protein sequence SEQ ID NO:1222.	297	50
1792	AAM767 71	Homo sapiens	MOLE- Human bone marrow expressed probe encoded protein	272	51

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			SEQ ID NO: 37077.		
1792	AAM639 51	Homo sapiens	MOLE- Human brain expressed single exon probe encoded protein SEQ ID NO: 36056.	272	51
1793	AAB942 49	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14645.	799	99
1793	gi104343 56	Homo sapiens	cDNA FLJ12700 fis, clone NT2RP1000721.	799	99
1793	ABB1242 2	Homo sapiens	HYSE- Human bone marrow expressed protein SEQ ID NO: 261.	528	99
1794	AAB651 89	Homo sapiens	GETH Human PRO1013 (UNQ496) protein sequence SEQ ID NO:158.	1858	99
1794	AAB875 36	Homo sapiens	GETH Human PRO1013.	1858	99
1794	AAY666 66	Homo sapiens	GETH Membrane-bound protein PRO1013.	1858	99
1795	AAB651 89	Homo sapiens	GETH Human PRO1013 (UNQ496) protein sequence SEQ ID NO:158.	1655	93
1795	AAB875 36	Homo sapiens	GETH Human PRO1013.	1655	93
1795	AAY666 66	Homo sapiens	GETH Membrane-bound protein PRO1013.	1655	93
1796	gi777026 3	Homo sapiens	PRO3077	620	100
1796	gi158916 32	Agrobacterium tumefaciens	AGR_L_3035p	67	31
1797	AAY362 33	Homo sapiens	HUMA- Human secreted protein encoded by gene 10.	302	96
1797	gi298307	Rattus sp.	beta 3-adrenergic receptor; beta 3-AR	83	38
1797	gi241216	Rattus sp.	beta 3-adrenergic receptor	83	38
1798	ABB1203 7	Homo sapiens	HYSE- Human ribosomal protein L31 homologue, SEQ ID NO:2407.	341	100
1798	AAG038 94	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 7975.	341	100
1798	AAB437 07	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1152.	341	100
1799	AAE1099 5	Homo sapiens	INCY- Human lipid metabolism enzyme-4 (LME-4) protein.	2242	99
1799	AAB419 89	Homo sapiens	CURA- Human ORFX ORF1753 polypeptide sequence SEQ ID NO:3506.	2224	98
1799	AAB940 07	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14123.	1212	99
1800	AAY761 94	Homo sapiens	HUMA- Human secreted protein encoded by gene 71.	296	98
1800	AAY131 96	Homo sapiens	GEST Human secreted protein encoded by 5' EST SEQ ID NO: 210.	291	96
1800	AAY194 71	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	148	96
1801	ABB1242	Homo sapiens	HYSE- Human bone marrow	2841	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	2		expressed protein SEQ ID NO: 261.		
1801	gi363895 6	Homo sapiens	PAC clone RP4-751H13 from 7q35-qter, complete sequence.	2830	100
1801	gi767049 6	Mus musculus	unnamed protein product	2352	84 -
1802	AAU123 82	Homo sapiens	GETH Human PRO792 polypeptide sequence.	1332	86
1802	AAB244 16	Homo sapiens	GETH Human PRO792 protein sequence SEQ ID NO:155.	1332	86
1802	AAB240 55	Homo sapiens	GETH Human PRO792 protein sequence SEQ ID NO:31.	1332	86
1803	AAU123 82	Homo sapiens	GETH Human PRO792 polypeptide sequence.	1590	100
1803	AAB244 16	Homo sapiens	GETH Human PRO792 protein sequence SEQ ID NO:155.	1590	100
1803	AAB240 55	Homo sapiens	GETH Human PRO792 protein sequence SEQ ID NO:31.	1590	100
1804	AAB437 13	Homo sapiens	HUMA- Human cancer associated protein sequence SEQ ID NO:1158.	414	98
1804	AAR114 90	Homo sapiens	CALI- Tissue-plastin.	414	98
1804	gi339848	Homo sapiens	Human T-plastin mRNA, 5' end.	414	98
1805	AAY194 56	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	307	90
1805	gi138825 00	Mycobacterium tuberculosis CDC1551	conserved hypothetical transmembrane protein	70	32
1805	gi155071 4	Mycobacterium tuberculosis H37Rv	hypothetical protein Rv2673	70	32
1806	gi165528 50	Homo sapiens	cDNA FLJ32676 fis, clone TESTI1000168, weakly similar to PROTEIN PHOSPHATASES PP1 REGULATORY SUBUNIT SDS22.	1265	100
1806	gi128599 36	Mus musculus	putative	962	78
1806	AAM388 77	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 2022.	200	45
1807	AAY413 90	Homo sapiens	HUMA- Human secreted protein encoded by gene 83 clone HRAAB15.	813	100
1807	AAM399 90	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 3135.	581	44
1807	AAM389 99	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 2144.	581	44
1808	gi128361 97	Mus musculus	putative	2154	75
1808	AAM823 98	Homo sapiens	HUMA- Human immune/haematopoietic antigen SEQ ID NO:9991.	750	90
1808	AAG040 69	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 8150.	491	100
1809	AAB952 52	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17419.	3112	99

SEQ	Hit ID	Speicies	Description	S score	Percent
ID					identity
1809	gi104347 29	Homo sapiens	cDNA FLJ12949 fis, clone NT2RP2005336, weakly similar to TRICHOHYALIN.	3112	99
1809	gi128040 75	Homo sapiens	hypothetical protein FLJ12949, clone MGC:11261 IMAGE:3942403, mRNA, complete cds.	1786	100
1810	AAY195 87	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	160	96
1811	gi156208 81	Homo sapiens	mRNA for KIAA1911 protein, partial cds.	1153	100
1811	AAM916 41	Homo sapiens	HUMA- Human immune/haematopoietic antigen SEQ ID NO:19234.	326	50
1811	gi128458 02	Mus musculus	putative	309	58
1812	gi104399 11	Homo sapiens	cDNA: FLJ23282 fis, clone HEP07626.	2677	100
1812	AAY996 53	Homo sapiens	INCY- Human GTPase associated protein-4.	2324	100
1812	gi101671 2	Rattus norvegicus	Fos-related antigen	2060	84
1813	AAY601 52	Homo sapiens	META- Human endometrium tumour EST encoded protein 212.	379	100
1813	AAY601 51	Homo sapiens	META- Human endometrium tumour EST encoded protein 211.	83	73
1813	AAB929 84	Homo sapiens	HELI- Human protein sequence SEQ ID NO:11704.	71	32
1814	gi146029 95	Homo sapiens	hypothetical protein FLJ23375, clone MGC:16634 IMAGE:4121449, mRNA, complete cds.	2299	100
1814	gi104400 40	Homo sapiens	cDNA: FLJ23375 fis, clone HEP16206.	2294	99
1814	AAB429 73	Homo sapiens	CURA- Human ORFX ORF2737 polypeptide sequence SEQ ID NO:5474.	725	98
1815	AAM787 22	Homo sapiens	HYSE- Human protein SEQ ID NO 1384.	1808	99
1815	gi150539 87	Homo sapiens	c-Mpl binding protein mRNA, complete cds.	1439	100
1815	AAE1019 9	Homo sapiens	HYSE- Human bone marrow derived contig polypeptide, SEQ ID NO: 64.	1231	85
1816	gi104404 74	Homo sapiens	mRNA for FLJ00074 protein, partial cds.	1001	100
1816	gi702096 9	Homo sapiens	cDNA FLJ20703 fis, clone KAIA1965.	546	63
1816	gi133251 42	Homo sapiens	DKFZP586I2223 protein, clone MGC:10840 IMAGE:3616057, mRNA, complete cds.	535	58
1817	gi100472 49	Homo sapiens	mRNA for KIAA1587 protein, partial cds.	5002	100
1817	gi136764 86	Macaca fascicularis	hypothetical protein	4641	92

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1817	gi126591 40	Mus musculus	mage-el	2474	67
1818	AAY725 96	Homo sapiens	ZYMO Human cytokine alpha protein-27 (Zalpha27).	3538	99
1818	gi127102 97	Homo sapiens	unnamed protein product	3538	99
1818	gi104375 88	Homo sapiens	cDNA: FLJ21478 fis, clone COL05012.	2793	100
1819	gi128387 32	Mus musculus	putative	1060	91
1819	gi657221 5	Homo sapiens	Human DNA sequence from clone RP1-37E16 on chromosome 22 Contains the 3' part of the gene for a novel VHS domain containing protein similar to predicted worm and human proteins, the SH3BP1 gene for SH3-domain binding protein 1, the gene for a novel protein similar to nitrophenylphosphatases from various organisms, the LGALS1 gene for soluble galactoside-binding lectin 1, a novel gene and the gene for a novel protein similar to mouse RIP3 (P116 Rho-interacting protein) and rat RB109, complete sequence.	647	46
1819	gi126531 07	Homo sapiens	hypothetical protein dJ37E16.5, clone MGC:8472 IMAGE:2821743, mRNA, complete cds.	647	46
1820	AAB736 90	Homo sapiens	INCY- Human oxidoreductase protein ORP-23.	2502	100
1820	gi104382 22	Homo sapiens	cDNA: FLJ21988 fis, clone HEP06320.	2502	100
1820	gi143367 19	Homo sapiens	16p13.3 sequence section 3 of 8.	2431	90
1821	gi372410 5	Homo sapiens	hHa4 gene for keratin type 1.	2029	99
1821	gi372410 1	Homo sapiens	hHa3-I gene for keratin type I.	1798	90
1821	gi128526 06	Mus musculus	putative	1796	87
1822	gi322823 7	Homo sapiens	UHS KerB gene.	1079	88
1822	AAM794 04	Homo sapiens	HYSE- Human protein SEQ ID NO 3050.	877	81
1822	gi200962	Mus musculus	serine 1 ultra high sulfur protein	867	70
1823	AAB863 64	Homo sapiens	MEMO- Human ceramidase K2 protein.	1459	100
1823	AAB189 86	Homo sapiens	INCY- Amino acid sequence of a human transmembrane protein.	1459	100
1823	gi146694 36	Homo sapiens	alkaline phytoceramidase (APHC) mRNA, complete cds.	1459	100
1824	AAW616 01	Homo sapiens	INCY- Human metallothionein HMBP-I.	381	98

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1824	AAB571 83	Homo sapiens	ROSE/ Human prostate cancer antigen protein sequence SEQ ID NO:1761.	363	84
1824	AAO138 69	Homo sapiens	HYSE- Human polypeptide SEQ ID NO 27761.	362	81
1825	gi159288 96	Homo sapiens	Similar to synaptotagmin-like 4, clone MGC:17313 IMAGE:3908307, mRNA, complete cds.	3496	100
1825	gi173859 44	Rattus norvegicus	granuphilin A	3225	91
1825	gi592673	Mus musculus	granuphilin-a	3187	90
1826	gi126531 47	Homo sapiens	signal sequence receptor, beta (translocon-associated protein beta), clone MGC:8566 IMAGE:2822983, mRNA, complete cds.	864	99
1826	gi452757	Homo sapiens	H.sapiens mRNA for TRAP beta subunit.	847	99
1826	gi173688 0	Homo sapiens	Human SSR2 mRNA for beta- signal sequence receptor, complete cds.	847	99
1827	AAB427 22	Homo sapiens	CURA- Human ORFX ORF2486 polypeptide sequence SEQ ID NO:4972.	2865	100
1827	AAB952 63	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17448.	2864	99
1827	gi104347 59	Homo sapiens	cDNA FLJ12969 fis, clone NT2RP2005841, weakly similar to Homo sapiens mRNA for ALEX3.	2864	99
1828	gi798129 7	Homo sapiens	Human DNA sequence from clone RP4-534K7 on chromosome 1p31.2-32.3. Contains the PGM1 gene for phosphoglucomutase 1, a novel gene, ESTs, STSs, GSSs and a putative CpG island, complete sequence.	3323	100
1828	gi160418 46	Homo sapiens	cione MGC:9635 IMAGE:3915942, mRNA, complete cds.	3308	99
1828	gi140178 15	Homo sapiens	mRNA for KIAA1799 protein, partial cds.	3186	100
1829	gi943803 3	Homo sapiens	ser/arg-rich pre-mRNA splicing factor SR-A1 (SR-A1) gene, complete cds.	6833	100
1829	gi104404 02	Homo sapiens	mRNA for FLJ00034 protein, partial cds.	6827	99
1829	gi143853 2	Rattus norvegicus	rAl	5019	82
1830	AAG812 94	Homo sapiens	ZYMO Human AFP protein sequence SEQ ID NO:106.	1128	100
1830	AAU035 89	Homo sapiens	INCY- Human DNA modification protein, DNAMP- 4.	1128	100

1830 gi173902 Homo sapiens Similar to RIKEN cDNA 201005108 gene, clone MGC-27120 IMAGE:4793121, mRNA, complete cds. Similar to RIKEN complete cds. Richard complete cds. Similar to RIKEN complete cds. Similar to	SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
82		02		2510005D08 gene, clone MGC:27120 IMAGE:4793121, mRNA, complete cds.		100
1831 gi128386 Mus musculus putative 27 28 27 28 29 29 20 20 20 20 20 20	1831	1	Homo sapiens		472	95
1832	1831	1 -	Mus musculus	putative	444	68
1832	1831	_		tektin A1	292	40
R32	1832	1	Homo sapiens		434	100
1832 gi333523 Pigeonpox virus major envelope antigen 72 28 1833 AAR561 Homo sapiens USSH Neuroendocrine tumor dlk 1833 gi153419 Homo sapiens Clone MGC:17291 LMAGE:4347187, mRNA, complete cds. 1833 gi155593 Homo sapiens Clone MGC:20310 LMAGE:4130556, mRNA, complete cds. 1834 AAM514 Homo sapiens Clone MGC:20310 LMAGE:4130556, mRNA, complete cds. 1834 AAY865 Homo sapiens HUMA-Human gene 77- encoded protein fragment, SEQ ID NO:457. 1834 AAY862 Homo sapiens HUMA-Human gene 77- encoded protein fragment, SEQ ID NO:457. 1835 gi165525 98 SKNMC2000097, moderately similar to M.musculus mRNA for protein HtPG. 1835 gi154264 Homo sapiens GDNA FLJ32467 fis, clone SKNMC2000097, moderately similar to M.musculus mRNA for protein HtPG. 1836 gi724306 Homo sapiens DDNA FLJ21453 fis, clone COL04585. 1836 gi724306 Homo sapiens mRNA for KIAA1340 protein, partial cds. mRNA for KIAA0711 protein, complete cds. 1836 gi388214 Homo sapiens mRNA for KIAA0711 protein, complete cds. SEQ ID NO:1573. 1837 AAB947 Homo sapiens Clone MGC:16635 MAGE:4121528, mRNA, complete cds. SEQ ID NO:15753. 1837 gi104358 Homo sapiens Clone MGC:16718, mRNA, complete cds. CDNA FLJ31710 fis, clone CDNA FLJ31710 fis,	1832	1.7	Fowlpox virus	ORF FPV108 Virion envelope	72	28
1833	1832	gi333523	Pigeonpox virus		72	28
1833 gi15593 Homo sapiens Clone MGC:20310 IMAGE:4130556, mRNA, complete cds. 174 Homo sapiens Complete cds. 174 Homo sapiens Complete cds. 174 Homo sapiens Complete cds. 174 Homo sapiens Homo sapie		AAR561		USSH Neuroendocrine tumor	2003	
1833 gi155593 Homo sapiens Clone MGC:20310 IMAGE:4130556, mRNA, complete cds. 1712 100	1833		Homo sapiens	IMAGE:4347187, mRNA,	2003	95
1834	1833		Homo sapiens	IMAGE:4130556, mRNA,	2000	94
1834	1834	1	Homo sapiens		1712	100
1835 gi165525 Homo sapiens CDNA FLJ32467 fis, clone SKNMC2000097, moderately similar to M.musculus mRNA for protein Htf9C.	1834		Homo sapiens	HUMA- Human gene 77- encoded protein fragment, SEQ	679	98
1835 gi165525 Homo sapiens CDNA FLJ32467 fis, clone SKNMC2000097, moderately similar to M.musculus mRNA for protein Htf9C.	1834	1	Homo sapiens		514	98
1835 gi154264 Homo sapiens Hpall tiny fragments locus 9C, clone MGC:14943 IMAGE:4054100, mRNA, complete cds. 1835 gi104375 Homo sapiens CDNA: FLJ21453 fis, clone COL04585. 1836 gi724306 Homo sapiens mRNA for KIAA1340 protein, partial cds. 1836 gi388214 Homo sapiens mRNA for KIAA0711 protein, 311 28 28 29 28 29 29 29 29	1835		Homo sapiens	SKNMC2000097, moderately similar to M.musculus mRNA	2883	99
1835 gi104375 Homo sapiens cDNA: FLJ21453 fis, clone COL04585. 1836 gi724306 Homo sapiens mRNA for KIAA1340 protein, partial cds. 1836 gi388214 Homo sapiens mRNA for KIAA0711 protein, complete cds. 1836 gi146029 Homo sapiens clone MGC:16635 MAGE:4121528, mRNA, complete cds. 1837 AAB947 Homo sapiens HELI- Human protein sequence 2624 96 27 SEQ ID NO:15753. cDNA FLJ13710 fis, clone CDNA	1835		Homo sapiens	clone MGC:14943 IMAGE:4054100, mRNA,	2517	100
1836 gi388214 Homo sapiens mRNA for KIAA0711 protein, complete cds. 311 28 28 28 28 28 28 29 29	1835		Homo sapiens		2517	100
3	1836	gi724306 1	Homo sapiens	mRNA for KIAA1340 protein, partial cds.	2328	99
1836 gi146029 Homo sapiens clone MGC:16635 309 29 1837 AAB947 Homo sapiens HELI- Human protein sequence 2624 96 1837 gi104358 Homo sapiens cDNA FLJ13710 fis, clone 2624 96 PLACE2000373, weakly similar to F-SPONDIN PRECURSOR. hypothetical protein FLJ13710, clone MGC:14171 2473 98 1837 gi142507 Homo sapiens hypothetical protein FLJ13710, clone MGC:14171 2473 98 1837 manual manu	1836	1 -	Homo sapiens		311	28
27 SEQ ID NO:15753.	1836		Homo sapiens	clone MGC:16635 IMAGE:4121528, mRNA,	309	29
1837 gi104358 06 Homo sapiens 06 cDNA FLJ13710 fis, clone PLACE2000373, weakly similar to F-SPONDIN PRECURSOR. 96 1837 gi142507 Homo sapiens 42 hypothetical protein FLJ13710, clone MGC:14171 IMAGE:4120678, mRNA, complete cds. 2473 98	1837	1	Homo sapiens	HELI- Human protein sequence	2624	96
clone MGC:14171 IMAGE:4120678, mRNA, complete cds.	1837	gi104358 06		cDNA FLJ13710 fis, clone PLACE2000373, weakly similar		96
1838 AAB199 Homo sapiens INCY-Human oxidoreductase 1900 99	1837		Homo sapiens	clone MGC:14171 IMAGE:4120678, mRNA, complete cds.	2473	98
	1838	AAB199	Homo sapiens	INCY- Human oxidoreductase	1900	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	31		OXRD-6.		
1838	gi170443 56	Homo sapiens	unnamed protein product	1900	99
1838	AAW677 37	Homo sapiens	REGC Human fsh05 gene protein product.	1528	100
1839	gi104400 14	Homo sapiens	cDNA: FLJ23356 fis, clone HEP14919.	1859	99
1839	gi152082 23	Macaca fascicularis	hypothetical protein	1798	96
1839	gi128536 89	Mus musculus	putative	1535	80
1840	gi142505 12	Homo sapiens	clone MGC:15468 IMAGE:2966921, mRNA, complete cds.	966	88
1840	gi140432 62	Homo sapiens	Similar to RIKEN cDNA 1500026B10 gene, clone MGC:15737 IMAGE:3355622, mRNA, complete cds.	966	88
1840	gi128377 54	Mus musculus	putative	710	68
1841	gi767162 9	Homo sapiens	Human DNA sequence from clone RP11-145L22 on chromosome 6p21.32-22.2. Contains the gene for myelin/oligodendrocyte glycoprotein (MOG), the gene for a novel KRAB box containing C2H2 type zinc finger protein, ESTs, STSs, GSSs and a CpG island, complete sequence.	2247	90
1841	gi431182	Mus musculus	Zfp-57	674	39
1841	gi144956 50	Homo sapiens	zinc finger protein 331; zinc finger protein 463, clone MGC:15739 IMAGE:3355780, mRNA, complete cds.	444	29
1842	gi104399 51	Homo sapiens	cDNA: FLJ23311 fis, clone HEP11681.	2175	99
1842	ABB1246	Homo sapiens	HYSE- Human bone marrow expressed protein SEQ ID NO: 300.	259	100
1842	gi554172 2	Arabidopsis thaliana	putative protein	218	44
1843	gi999288 4	Homo sapiens	vacuolar proton pump 116 kDa accessory subunit (ATP6N1B) mRNA, complete cds, alternatively spliced.	4378	100
1843	AAB601 00	Homo sapiens	INCY- Human transport protein TPPT-20.	4331	99
1843	gi169032 13	Mus musculus	H-ATPase accessory subunit a4	3809	85
1844	AAM938 59	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3953.	3149	100
1844	gi172249 57	Homo sapiens	cationic amino acid transporter (SLC7A3) mRNA, complete cds.	3149	100
1844	AAM933	Homo sapiens	HELI- Human polypeptide, SEQ	3142	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	85		ID NO: 2970.		1
1845	gi120530 07	Homo sapiens	mRNA; cDNA DKFZp434D1812 (from clone DKFZp434D1812); complete cds.	6038	99
1845	gi424019 5	Homo sapiens	mRNA for KIAA0853 protein, partial cds.	4974	100
1845	AAB670 47	Homo sapiens	INCY- Human immune response molecule (IMUN) protein SEQ ID NO: 1.	3777	99
1846	AAB941 08	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14340.	2903	100
1846	AAU045 57	Homo sapiens	GETH Human Stra6 homologue, PRO10282.	2903	100
1846	gi135609 66	Homo sapiens	STRA6 isoform 1 mRNA, complete cds, alternatively spliced.	2903	100
1847	AAB583 63	Homo sapiens	ROSE/ Lung cancer associated polypeptide sequence SEQ ID 701.	309	100
1847	AAY485 07	Homo sapiens	META- Human breast tumour- associated protein 52.	308	98
1847	AAM239 52	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1477.	294	98
1848	AAM937 37	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3705.	929	49
1848	gi317060 9	Rattus norvegicus	monocarboxylate transporter MCT3	631	35
1848	gi767044 6	Mus musculus	unnamed protein product	631	47
1849	AAB953 59	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17661.	3130	99
1849	gi104350 88	Homo sapiens	cDNA FLJ13181 fis, clone NT2RP3004016, weakly similar to TRANSCRIPTION INTERMEDIARY FACTOR 1- BETA.	3130	99
1849	gi729735 7	Drosophila melanogaster	CG8419 gene product	746	29
1850	gi104368 13	Homo sapiens	cDNA: FLJ20859 fis, clone ADKA01617.	2426	100
1850	gi134771 83	Homo sapiens	Similar to hypothetical protein FLJ20859, clone MGC:12940 IMAGE:2822127, mRNA, complete cds.	2357	98
1850	gi128308 10	Homo sapiens	false p73 target protein gene, complete cds.	2239	99
1851	AAM243 67	Homo sapiens	HYSE- Human EST encoded protein SEQ ID NO: 1892.	546	100
1851	AAY275 76	Homo sapiens	HUMA- Human secreted protein encoded by gene No. 10.	394	96
1851	gi30478	Homo sapiens	Human mRNA for dopamine beta-hydroxylase type b (EC 1.14.17.1).	68	26
1852	gi165515 61	Homo sapiens	cDNA FLJ31657 fis, clone NT2RI2004304, moderately similar to Homo sapiens NY-	2859	92

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
			REN-2 antigen mRNA.		
1852	AAB366 26	Homo sapiens	INCY- Human FLEXHT-48 protein sequence SEQ ID NO:48.	2056	67
1852	gi128034 69	Homo sapiens	high-glucose-regulated protein 8, clone MGC:739 IMAGE:3139250, mRNA, complete cds.	2056	67
1853	gi776873 6	Homo sapiens	genomic DNA, chromosome 21q, section 87/105.	4306	99
1853	gi142457 29	Homo sapiens	ANKRD3 mRNA for dual- specificity Ser/Thr/Tyr kinase, complete cds.	4003	94
1853	gi988671 1	Homo sapiens	mRNA for protein kinase (dik gene).	3999	94
1854	gi104391 29	Homo sapiens	cDNA: FLJ22655 fis, clone HSI07590.	960	100
1854	AAG014 59	Homo sapiens	GEST Human secreted protein, SEQ ID NO: 5540.	668	100
1854	AAU173 65	Homo sapiens	HUMA- Novel signal transduction pathway protein, Seq ID 930.	523	100
1855	gi100471 85	Homo sapiens	mRNA for KIAA 1560 protein, partial cds.	3397	100
1855	gi 175124 95	Mus musculus	glycerol-3-phosphate acyltransferase, mitochondrial	3371	93
1855	gi193367	Mus musculus	glycerol-3-phosphate acyltransferase	3363	93
1856	ABB1223 6	Homo sapiens	HYSE- Human eppin-1 homologue, SEQ ID NO:2606.	472	100
1856	gi139373 34	Homo sapiens	Human DNA sequence from clone RP3-461P17 on chromosome 20q12-13.2. Contains two novel genes, gene HE4 for Major Epididymisspecific protein E4 precursor (Epididymis Secretory protein E4), RPL5 (60S Ribosomal Protein L5), COX6C (Cytochrome C Oxidase subunit VIC) and HSPD1 (HSP60, Mitochondrial Matrix Protein P1 precursor, Heat Shock Protein 60, GROEL, HUCHA60) pseudogenes, the SPINT3 gene for Kunitz type serine protease inhibitor 3 (HKIB9), two genes for novel Kunitz/Bovine pancreatic trypsin inhibitor and WAP-type (Whey Acidic Protein) 'four-disulfide core' domains containing proteins and the gene for Eppin-1, -2 and -3. Contains ESTs, STSs, GSSs and a CpG island, complete	415	
1856	gi135917 53	Oryctolagus cuniculus	sequence. eppin	257	66

1857 1857	gi128558 41 gi177366 46	Mus musculus Homo sapiens	putative	758	identity 57
1857		Homo saniens	ı	J	31
		Tomo suprons	Human DNA sequence from clone RP3-341D10 on chromosome X Contains a gene for a novel protein, part of the gene for a protein similar to ADP ribosylation factor 3, part of a gene similar to HTF9C and a CpG island, complete	424	100
1857	AAM389 58	Homo sapiens	sequence. HYSE- Human polypeptide SEQ ID NO 2103.	421	43
1858	gi104395 20	Homo sapiens	cDNA: FLJ22973 fis, clone KAT11042.	2289	100
1858	gi116123 88	Homo sapiens	zinc finger transcription factor Pegasus mRNA, complete cds.	2279	99
1858	AAU161 42	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1095.	1745	98
1859	gi135440 26	Homo sapiens	putative zinc finger protein from EUROIMAGE 566589, clone MGC:13109 IMAGE:3959436, mRNA, complete cds.	1481	99
1859	AAB939 32	Homo sapiens	HELI- Human protein sequence SEQ ID NO:13929.	1474	99
1859	gi104336 47	Homo sapiens	cDNA FLJ12222 fis, clone MAMMA1001105, moderately similar to OVO PROTEIN.	1474	99
1860	AAG786 15	Homo sapiens	SHAN- Human zinc finger transcription factor BioZFTF45.	1760	89
1860	gi136234 31	Homo sapiens	clone MGC:13132 IMAGE:4124255, mRNA, complete cds.	1753	100
1860	gi131118 97	Homo sapiens	Similar to KIAA0414 protein, clone MGC:2629 IMAGE:3503643, mRNA, complete cds.	1753	100
1861	AAB622 01	Homo sapiens	RIGE- Cell cycle protein Radh- isoform 1.	3697	99
1861	gi816380 4	Mus musculus	putative repair and recombination helicase RAD26L	3215	89
1861	AAB622 02	Homo sapiens	RIGE- Cell cycle protein Radh- isoform 2.	2142	99
1862	gi259856 5	Mus musculus	rab19	1008	88
1862	AAM789 77	Homo sapiens	HYSE- Human protein SEQ ID NO 1639.	603	56
1862	gi729512 7	Drosophila melanogaster	Rab-RP3 gene product	523	55
1863	gi173840 67 gi140399	Homo sapiens	Human DNA sequence from clone RP11-146P21 on chromosome 10 Contains the 3'end of a novel gene, a novel gene, the 5'end of the gene for KIAA0608 and a CpG island, complete sequence. hypothetical protein 1-2	2311	99

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	64	griseus			
1863	AAB951 96	Homo sapiens	HELI- Human protein sequence SEQ ID NO:17284.	2183	99
1864	gi126539 87	Homo sapiens	cutaneous T-cell lymphoma tumor antigen se70-2, clone MGC:5291 IMAGE:3451565, mRNA, complete cds.	1237	99
1864	gi113856 62	Homo sapiens	CTCL tumor antigen se70-2 mRNA, complete cds.	1237	99
1864	gi104369 25	Homo sapiens	cDNA: FLJ20957 fis, clone ADSE02053.	1233	99
1865	gi104399 11	Homo sapiens	cDNA: FLJ23282 fis, clone HEP07626.	2579	100
1865	AAY996 53	Homo sapiens	INCY- Human GTPase associated protein-4.	2544	100
1865	gi101671 2	Rattus norvegicus	Fos-related antigen	2256	84
1866	AAB530 73	Homo sapiens	GETH Human angiogenesis- associated protein PRO195, SEQ ID NO:46.	331	100
1866	AAB884 28	Homo sapiens	HELI- Human membrane or secretory protein clone PSEC0203.	331	100
1866	AAU123 07	Homo sapiens	GETH Human PRO195 polypeptide sequence.	331	100
1867	AAB941 97	Homo sapiens	HELI- Human protein sequence SEQ ID NO:14532.	4854	99
1867	gi104342 43	Homo sapiens	cDNA FLJ12634 fis, clone NT2RM4001858, weakly similar to T-BOX CONTAINING PROTEIN TBX6L.	4854	99
1867	gi669260 7	Mus musculus	MGA protein	4810	84
1868	AAB957 79	Homo sapiens	HELI- Human protein sequence SEQ ID NO:18726.	1326	100
1868	AAB428 78	Homo sapiens	CURA- Human ORFX ORF2642 polypeptide sequence SEQ ID NO:5284.	1326	100
1868	gi104366 25	Homo sapiens	cDNA FLJ14220 fis, clone NT2RP3003828.	1326	100
1869	AAY108 23	Homo sapiens	HUMA- Amino acid sequence of a human secreted protein.	183	100
1869	gi117158 4	Plasmodium falciparum	red alga1 chloroplast	72	29
1869	gi630468	Plasmodium falciparum	hypothetical protein 470 - Plasmodium falciparum >	72	29
1870	gi143367 13	Homo sapiens	16p13.3 sequence section 3 of 8.	1867	100
1870	gi591245 9	Homo sapiens	Human DNA sequence from clone LA16-380A1 on chromosome 16 Contains two novel genes, ESTs, an STS, GSSs and five putative CpG islands, complete sequence.	1106	100
1870	gi139052 32	Mus musculus	Unknown (protein for IMAGE:3601186)	145	28
1871	AAB433	Homo sapiens	CURA- Human ORFX	2463	97

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	82		ORF3146 polypeptide sequence SEQ ID NO:6292.		
1871	AAW734 00	Homo sapiens	HUMA- Human secreted protein encoded by Gene No. 4.	2454	100
1871	AAB583 40	Homo sapiens	ROSE/ Lung cancer associated polypeptide sequence SEQ ID 678.	2252	90
1872	AAB569 24	Homo sapiens	ROSE/ Human prostate cancer antigen protein sequence SEQ ID NO:1502.	2048	95
1872	AAY599 93	Homo sapiens	META- Human endometrium tumour EST encoded protein 53.	2048	95
1872	gi476122 3	Homo sapiens	NADP+-dependent isocitrate dehydrogenase (PICD) mRNA, complete cds.	2048	95
1873	AAB643 73	Homo sapiens	INCY- Amino acid sequence of human intracellular signalling molecule INTRA5.	1875	100
1873	AAB949 37	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16430.	1546	99
1873	gi152919 19	Drosophila melanogaster	LD31969p	1237	41
1874	AAB643 73	Homo sapiens	INCY- Amino acid sequence of human intracellular signalling molecule INTRA5.	1836	92
1874	AAB949 37	Homo sapiens	HELI- Human protein sequence SEQ ID NO:16430.	1546	99
1874	gi152919 19	Drosophila melanogaster	LD31969p	1209	39
1875	gi136235 11	Homo sapiens	clone MGC:12921 IMAGE:4129897, mRNA, complete cds.	590	100
1875	gi126982 16	Macaca fascicularis	hypothetical protein	589	99
1875	AAM936 16	Homo sapiens	HELI- Human polypeptide, SEQ ID NO: 3444.	584	99
1876	gi606368 8	Homo sapiens	ammecr1 gene, exon 1 and joined CDS (alternative transcripts).	968	56
1876	gi513948 2	Homo sapiens	mRNA for AMMECR1 protein.	968	56
1876	gi889465 7	Mus musculus	AMMECR1	964	53
1877	gi104402 18	Homo sapiens	cDNA: FLJ23506 fis, clone LNG03055.	2913	99
1877	AAY733 63	Homo sapiens	INCY- HTRM clone 2762174 protein sequence.	2110	100
1877	AAU162 62	Homo sapiens	HUMA- Human novel secreted protein, Seq ID 1215.	1286	98
1878	AAG671 51	Homo sapiens	INCY- Amino acid sequence of a human enzyme.	1689	99
1878	gi128562 10	Mus musculus	putative	1457	85
1878	gi312821 8	Arabidopsis thaliana	putative katanin	874	56
1879	AAB600 93	Homo sapiens	INCY- Human transport protein TPPT-13.	3295	95

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1879	gi172237 24	Homo sapiens	sodium/glucose cotransporter KST1 mRNA, complete cds.	3295	95
1879	AAF8402 3_sal	Homo sapiens	LEXI- Novel human transporter protein (NHP) encoding DNA.	3289	95
1880	AAB600 93	Homo sapiens	INCY- Human transport protein TPPT-13.	3461	99
1880	gi172237 24	Homo sapiens	sodium/glucose cotransporter KST1 mRNA, complete cds.	3461	99
1880	AAF8402 3_aa1	Homo sapiens	LEXI- Novel human transporter protein (NHP) encoding DNA.	3455	99
1881	gi128454 75	Mus musculus	putative	1648	70
1881	gi135433 07	Homo sapiens	cargo selection protein (mannose 6 phosphate receptor binding protein), clone MGC:11117 IMAGE:3833411, mRNA, complete cds.	725	39
1881	AAY672 40	Homo sapiens	INCY- Human adipophilin-like protein (HALP) amino acid sequence.	724	39
1882	AAW469 04	Homo sapiens	ASAH A human mutant alanine aminotransferase.	1821	68
1882	gi176309 6	Homo sapiens	Human glutamate pyruvate transaminase (GPT) gene, complete cds.	1821	68
1882	gi 173904 65	Homo sapiens	glutamic-pyruvate transaminase (alanine aminotransferase), clone MGC:17068 IMAGE:4179699, mRNA, complete cds.	1821	68
1883	AAD094 95_aa1	Homo sapiens	SUGE- Human SGP003 phosphatase polypeptide encoding DNA.	1161	100
1883	AAE0483 7	Homo sapiens	SUGE- Human SGP003 phosphatase polypeptide.	1159	99
1883	AAB186 67	Homo sapiens	INCY- A human regulator of intracellular phosphorylation.	1021	91
1884	gi308942 7	Homo sapiens	SSC6 rearranged T cell receptor beta chain (TCRBV17) gene, complete cds.	1089	69
1884	gi300292 7	Homo sapiens	T cell receptor beta chain (TCRBV17S1-TCRBJ1S5) mRNA, complete cds.	1089	69
1884	gi298250 8	Homo sapiens	mRNA for TCR beta chain, specific for Mage 3/HLA-A2.	1089	70
1885	gi128582 21	Mus musculus	putative	1850	91
1885	gi123141 02	Homo sapiens	Human DNA sequence from clone RP3-329L24 on chromosome 6q22.1-22.33 Contains a gene for a novel protein, part of a gene for a hypothetical 23.0 KD protein, part of a gene for a protein (MCM2/3/5 family), ESTs, STSs, GSSs and a CpG island, complete sequence.	1405	100
1885	gi438883	Arabidopsis	putative DNA replication	726	41

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
	2	thaliana	licensing factor		
1886	gi147146 00	Homo sapiens	clone IMAGE:3354344, mRNA, partial cds.	3001	99
1886	AAR943 86	Homo sapiens	NEWE- Human neural cell protein marker RR/B.	673	29
1886	gi376936 2	Homo sapiens	ectoderm-neural cortex-1 protein (ENC-1) mRNA, complete cds.	673	29
1887	gi100472 39	Homo sapiens	mRNA for KIAA1582 protein, partial cds.	7698	96
1887	gi165518 20	Homo sapiens	cDNA FLJ31859 fis, clone NT2RP7001231.	3076	100
1887	gi795918 1	Homo sapiens	mRNA for KIAA1460 protein, partial cds.	2840	45
1888	gi100472 39	Homo sapiens	mRNA for KIAA1582 protein, partial eds.	7800	99
1888	gi165518 20	Homo sapiens	cDNA FLJ31859 fis, clone NT2RP7001231.	2835	93
1888	gi795918 1	Homo sapiens	mRNA for KIAA1460 protein, partial cds.	2744	44
1889	gi100472 39	Homo sapiens	mRNA for KIAA1582 protein, partial cds.	7372	95
1889	gi795918 1	Homo sapiens	mRNA for KIAA1460 protein, partial cds.	2618	44
1889	gi165518 20	Homo sapiens	cDNA FLJ31859 fis, clone NT2RP7001231.	2354	81
1890	gi163072 85	Homo sapiens	clone IMAGE:3877337, mRNA, partial cds.	1627	98
1890	gi152080 51	Macaca fascicularis	hypothetical protein	1417	55
1890	AAY949 18	Homo sapiens	GEMY Human secreted protein clone dd504_18 protein sequence SEQ ID NO:42.	1247	63
1891	gi278041 4	Homo sapiens	hBACH mRNA for brain acyl- CoA hydrolase, complete cds.	1742	100
1891	gi169243 33	Homo sapiens	cytosolic acyl coenzyme A thioester hydrolase, clone MGC:1126 IMAGE:3507488, mRNA, complete cds.	1742	100
1891	96	Homo sapiens	HUMA- Human secreted protein encoded by gene 169 clone HPTTU11.	1715	98
1892	AAB688 74	Homo sapiens	INCY- Human RECAP polypeptide, SEQ ID NO: 4.	1266	100
1892	AAY948 90	Homo sapiens	PROT- Human protein clone HP02798.	1266	100
1892	gi144245 18	Homo sapiens	Similar to RIKEN cDNA 1190004A01 gene, clone MGC:13153 IMAGE:4302257, mRNA, complete cds.	1266	100
1893	gi145950 19	Homo sapiens	mRNA for keratin 6 irs (KRT6IRS gene).	843	77
1893	gi609207 5	Mus musculus	type II cytokeratin	836	74
1893	gi128345 35	Mus musculus	putative	836	74
1894	gi140291 53	Homo sapiens	microtubule-associated protein GLFND mRNA, complete cds.	2565	100

SEQ ID	Hit ID	Speicies	Description	S score	Percent identity
1894	gi131119 07	Homo sapiens	clone MGC:3213 IMAGE:3502614, mRNA, complete cds.	2565	100
1894	gi134477 59	Homo sapiens	fibronectin type 3 and SPRY domain-containing protein 1 (FSD1) mRNA, complete cds.	2562	99
1895	gi144245 91	Homo sapiens	hypothetical protein FLJ22127, clone MGC:14926 IMAGE:4123948, mRNA, complete cds.	2565	100
1895	gi104380 86	Homo sapiens	cDNA: FLJ21886 fis, clone HEP03022.	2555	99
1895	gi104384 00	Homo sapiens	cDNA: FLJ22127 fis, clone HEP19530.	1566	100
1896	gi151503 06	Homo sapiens	glycogenin-interacting protein 3 mRNA, complete cds.	1571	100
1896	gi151503 04	Homo sapiens	glycogenin-interacting protein 2 mRNA, complete cds, alternatively spliced.	1571	100
1896	gi151502 98	Homo sapiens	glycogenin-interacting protein 1 mRNA, complete cds.	1571	100

TABLE 3

SEQ ID NO:	Database entry ID	Description	Results**
950	BL00972	Ubiquitin carboxyl-terminal hydrolases family 2 proteins.	BL00972A 11.93 2.500e-20 267- 285 BL00972D 22.55 5.179e-17 828-853 BL00972E 20.72 8.650e- 13 855-877 BL00972C 16.48 7.120e-11 411-426 BL00972B 9.45 7.923e-10 353-363
950	PR00833	POLLEN ALLERGEN POA PI SIGNATURE	PR00833H 2.30 8.000e-10 2-17
950	PR00308	TYPE I ANTIFREEZE PROTEIN SIGNATURE	PR00308A 5.90 7.671e-09 5-20 PR00308A 5.90 9.471e-09 4-19
951	BL00018	EF-hand calcium-binding domain proteins.	BL00018 7.41 5.696e-09 331-344
951	PR00180	CELLULAR RETINALDEHYDE- BINDING PROTEIN SIGNATURE	PR00180C 10.92 8.821e-09 70-92
952	BL00018	EF-hand calcium-binding domain proteins.	BL00018 7.41 5.696e-09 331-344
952	PR00180	CELLULAR RETINALDEHYDE- BINDING PROTEIN SIGNATURE	PR00180C 10.92 8.821e-09 70-92
953	PR00401	SH2 DOMAIN SIGNATURE	PR00401B 12.94 1.000e-08 340- 351
954	PR00401	SH2 DOMAIN SIGNATURE	PR00401B 12.94 1.000e-08 367- 378
955	BL00625	Regulator of chromosome condensation (RCC1) proteins.	BL00625A 16.21 7.787e-16 308- 337 BL00625A 16.21 7.369e-15 190-219 BL00625B 17.69 1.514e- 13 302-336 BL00625B 17.69 2.286e-13 184-218 BL00625B 17.69 3.957e-13 132-166 BL00625A 16.21 5.690e-13 138- 167 BL00625A 16.21 5.731e-11 360-389 BL00625B 17.69 3.333e- 10 354-388

SEQ ID NO:	Database entry ID	Description	Results*
955	PR00633	CHROMOSOME CONDENSATION REGULATOR RCC1 SIGNATURE	PR00633A 9.32 6.143e-09 202-219 PR00633H 15.10 6.268e-09 196- 218 PR00633F 10.03 6.354e-09 373-388 PR00633G 13.71 7.556e- 09 190-209
957	BL00120	Lipases, serine proteins.	BL00120B 11.37 9.486e-12 166- 181
957	PR00111	ALPHA/BETA HYDROLASE FOLD SIGNATURE	PR00111B 10.61 1.176e-09 170- 184
963	BL00183	Ubiquitin-conjugating enzymes proteins.	BL00183 28.97 1.329e-10 45-93
966	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 6.034e-09 262-277
967	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 6.034e-09 74-89
968	BL00790	Receptor tyrosine kinase class V proteins.	BL00790D 12.41 8.297e-09 804- 829
969	BL00790	Receptor tyrosine kinase class V proteins.	BL00790D 12.41 8.297e-09 878- 903
971	PR00380	KINESIN HEAVY CHAIN SIGNATURE	PR00380D 9.93 2.080e-22 321-343 PR00380A 14.18 1.486e-21 79-101 PR00380B 12.64 6.571e-18 217- 235 PR00380C 13.18 6.927e-13 269-288
971	BL00411	Kinesin motor domain proteins.	BL00411H 15.66 8.200c-30 320- 351 BL00411G 21.39 6.100e-28 270-312 BL00411C 15.04 7.000e- 22 79-101 BL00411F 14.77 1.273e-19 208-233 BL00411E 10.43 7.429e-12 142-161 BL00411A 11.31 4.484e-11 9-24 BL00411B 13.51 1.563e-10 45-62
971	PD00301	PROTEIN REPEAT MUSCLE CALCIUM-BI.	PD00301A 10.24 6.400e-09 598- 609
971	DM01399	VARICELLA-ZOSTER VIRUS GENE 54 PROTEIN.	DM01399B 12.42 7.092e-09 1571- 1583

*Results include in order: accession number subtype; raw score; p-value; position of signature in amino acid sequence.

SEQ ID NO:	Database entry ID	Description	Results*
971	BL00678	Trp-Asp (WD) repeat proteins proteins.	BL00678 9.67 8.800e-10 1350- 1361 BL00678 9.67 7.158e-09 1629-1640
971	BL00502	Polygalacturonase proteins.	BL00502A 13.44 7.341e-09 1424- 1439
971	BL00412	Neuromodulin (GAP-43) proteins.	BL00412D 16.54 7.796e-09 568- 619
971	BL00226	Intermediate filaments proteins.	BL00226B 23.86 8.012e-09 930- 978
971	PR00320	G-PROTEIN BETA WD-40 REPEAT SIGNATURE	PR00320B 12.19 2.385e-12 1348- 1363 PR00320C 13.01 1.720e-10 1348-1363 PR00320A 16.74 4.971e-10 1348-1363 PR00320B 12.19 5.886e-10 1544-1559 PR00320A 16.74 3.415e-09 1544- 1559 PR00320C 13.01 5.500e-09 1498-1513 PR00320B 12.19 8.650e-09 1627-1642 PR00320C 13.01 9.100e-09 1627-1642

SEQ ID NO:	Database entry ID	Description	Results*
973	BL01242	Formamidopyrimidine-DNA glycosylase proteins.	BL01242F 17.92 5.300e-11 32-66
975	PF00651	BTB (also known as BR-C/Ttk) domain proteins.	PF00651 15.00 2.500e-14 46-59
975	PR00501	KELCH REPEAT SIGNATURE	PR00501A 8.25 7.750e-11 371- 385
976	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 3.898e-09 99-132
977	PR00380	KINESIN HEAVY CHAIN SIGNATURE	PR00380A 14.18 9.250e-25 93- 115 PR00380D 9.93 4.857e-19 302-324 PR00380B 12.64 4.429e- 18 212-230 PR00380C 13.18 1.692e-16 247-266
977	BL00411	Kinesin motor domain proteins.	BL00411G 21.39 7.750e-32 248- 290 BL00411F 14.77 1.000e-25 203-228 BL00411C 15.04 1.621e- 24 93-115 BL00411H 15.66 1.871e-24 301-332 BL00411E 10.43 6.625e-20 143-162 BL00411A 11.31 4.484e-11 5-20
977	PF00846	Hantavirus nucleocapsid protein.	PF00846H 3.96 9.182e-10 408- 445
977	BL00224	Clathrin light chain proteins.	BL00224B 16.94 7.136e-09 363- 416
978	BL00107	Protein kinases ATP-binding region proteins.	BL00107A 18.39 3.368e-18 36-67
978	PR00109	TYROSINE KINASE CATALYTIC DOMAIN SIGNATURE	PR00109B 12.27 2.068e-10 36-55
980	BL00594	Aromatic amino acids permeases proteins.	BL00594A 16.75 9.376e-09 76- 120
982	BL00790	Receptor tyrosine kinase class V proteins.	BL00790E 29.58 1.111e-12 614- 662 BL00790E 29.58 3.111e-12 668-716 BL00790E 29.58 7.000e- 10 560-608
982	BL00279	Membrane attack complex components / perforin proteins.	BL00279E 37.11 7.632e-12 727- 775 BL00279E 37.11 2.047e-09 765-813
982	BL01187	Calcium-binding EGF-like domain proteins pattern proteins.	BL01187B 12.04 4.600c-11 791- 807 BL01187B 12.04 3.571c-10 829-845 BL01187B 12.04 8.714c- 10 753-769 BL01187A 9.98 4.375c-09 812-824 BL01187A 9.98 5.125c-09 774-786
982	PR00343	SELECTIN SUPERFAMILY COMPLEMENT-BINDING REPEAT SIGNATURE	PR00343C 16.85 5.364e-09 13-32
982	PR00764	COMPLEMENT C9 SIGNATURE	PR00764F 16.89 8.027e-10 744- 765 PR00764F 16.89 6.844e-09 782-803
982	PR00010	TYPE II EGF-LIKE SIGNATURE	PR00010A 11.79 6.192e-11 814- 826 PR00010C 11.16 5.909e-10 758-769 PR00010A 11.79 7.677e- 10 776-788 PR00010C 11.16 1.214e-09 796-807 PR00010C 11.16 8.286e-09 834-845
986	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 4.150e-12 126- 149
987	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019A 11.19 6.087e-10 93- 107 PR00019B 11.36 7.840e-09 90-104

SEQ ID NO:	Database entry ID	Description	Results*
990	PD01443	INHIBITOR CALPAIN CALPASTATIN REPEAT THIOL PROT.	PD01443D 8.36 4.670e-09 815- 837
991	BL01101	Casein kinase II regulatory subunit proteins.	BL01101A 16.07 1.000e-40 9-54 BL01101B 10.94 9.000e-31 72-97
991	PR00472	CASEIN KINASE II REGULATORY SUBUNIT FAMILY SIGNATURE	PR00472C 12.38 5.154e-28 80- 102 PR00472A 8.03 7.600e-23 8- 25 PR00472B 14.84 1.000e-19 25-40
994	BL01166	RNA polymerases beta chain proteins.	BL01166G 18.10 2.500e-34 824- 866 BL01166H 19.05 9.410e-30 936-986 BL01166D 17.37 4.396e-19 612-642 BL01166E 13.47 8.244e-17 682-706 BL01166C 12.21 9.357e-12 431- 456
995	BL00518	Zinc finger, C3HC4 type (RING finger), proteins.	BL00518 12.23 7.000e-09 25-34
996	BL00038	Myc-type, 'helix-loop-helix' dimerization domain proteins.	BL00038A 13.61 6.625e-11 284- 300
996	DM00984	w MYOD MYOBLAST DETERMINATION SHORT.	DM00984B 15.18 3.901e-09 262- 317
996	BL01009	Extracellular proteins SCP/Tpx-1/Ag5/PR-1/Sc7 proteins.	BL01009A 13.75 7.750e-09 260- 278
997	BL00905	GTP1/OBG family proteins.	BL00905D 15.00 4.214e-10 125- 140
997	PR00449	TRANSFORMING PROTEIN P21 RAS SIGNATURE	PR00449C 17.27 3.903e-13 63-86 PR00449A 13.20 7.750e-10 22-44
997	BL01019	ADP-ribosylation factors family proteins.	BL01019A 13.20 8.624e-10 56-96
997	BL01115	GTP-binding nuclear protein ran proteins.	BL01115B 10.81 1.505e-09 102- 146
998	BL00107	Protein kinases ATP-binding region proteins.	BL00107B 13.31 7.300e-15 64-80
998	BL00239	Receptor tyrosine kinase class II proteins.	BL00239E 17.14 2.693e-10 36-86
1001	BL00383	Tyrosine specific protein phosphatases proteins.	BL00383E 10.35 5.263e-09 328- 339
1003	BL00383	Tyrosine specific protein phosphatases proteins.	BL00383E 10.35 5.263e-09 246- 257
1004	BL00383	Tyrosine specific protein phosphatases proteins.	BL00383E 10.35 5.263e-09 328- 339
1010	BL00226	Intermediate filaments proteins.	BL00226B 23.86 5.919e-09 560- 608
1012	PR00322	G10 PROTEIN SIGNATURE	PR00322E 6.62 1.720e-10 30-40
1012	BL00997	G10 protein.	BL00997C 6.36 3.308e-09 29-39
1013	BL00269	Mammalian defensins proteins.	BL00269C 16.52 6.786e-26 110- 139 BL00269A 8.53 2.607e-20 45-65 BL00269B 19.17 5.500e-17 72-101
1014	BL01160	Kinesin light chain repeat proteins.	BL01160B 19.54 8.297e-10 6-60
1015	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 5.846e-11 476- 493 BL00028 16.07 6.192e-11 989-1006
1015	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 6.087e-10 473- 487 PR00048A 10.52 1.000e-09 986-1000
1015	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 6.571e-12 464- 477 PD00066 13.92 7.000e-12 977-990 PD00066 13.92 4.600e- 09 949-962 PD00066 13.92

SEQ ID NO:	Database entry ID	Description	Results*
			7.300e-09 397-410
1019	BL00289	Pentaxin family proteins.	BL00289E 18.00 4.375e-13 22-37
1019	PR00895	PENTAXIN SIGNATURE	PR00895G 14.55 4.913e-10 19-31
1022	BL00348	p53 tumor antigen proteins.	BL00348F 23.19 4.571e-09 140- 183
1023	BL00455	Putative AMP-binding domain proteins.	BL00455 13.31 6.684e-13 248- 264
1023	PR00154	AMP-BINDING SIGNATURE	PR00154A 8.88 7.375e-10 241- 253
1026	BL00421	Transmembrane 4 family proteins.	BL00421E 20.97 1.851e-09 17-47
1026	PR00259	TRANSMEMBRANE FOUR FAMILY SIGNATURE	PR00259D 13.50 7.097e-09 20-47
1028	PD01066	PROTEIN ZINC FINGER ZINC-FINGER METAL-BINDING NU.	PD01066 19.43 2.149e-29 6-45
1028	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 1.692e-15 234- 247 PD00066 13.92 3.400e-14 150-163 PD00066 13.92 5.800e- 14 206-219 PD00066 13.92 8.714e-12 178-191
1028	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 2.350e-13 102- 119 BL00028 16.07 5.500e-11 190-207 BL00028 16.07 6.192e- 11 218-235 BL00028 16.07 1.000e-09 134-151
1028	PR00048	C2H2-TYPE ZÎNC FINGER SIGNATURE	PR00048A 10.52 4.750e-14 215- 229 PR00048A 10.52 5.500e-13 99-113 PR00048A 10.52 4.316e- 11 131-145 PR00048B 6.02 4.462e-11 115-125 PR00048A 10.52 1.391e-10 159-173 PR00048B 6.02 6.625e-10 203- 213 PR00048A 10.52 4.600e-09 187-201 PR00048B 6.02 8.579e- 09 147-157
1029	PR00014	FIBRONECTIN TYPE III REPEAT SIGNATURE	PR00014D 12.04 2.059e-10 215- 230
1029	BL00790	Receptor tyrosine kinase class V proteins.	BL00790F 15.90 2.519e-09 157- 184
1032	BL00269	Mammalian defensins proteins.	BL00269C 16.52 6.786e-26 133- 162 BL00269A 8.53 2.607e-20 68-88 BL00269B 19.17 5.500e-17 95-124
1033	PD01876	ANTIGEN MELANOMA-ASSOCIATED MULTIGENE FAMILY TUM.	PD01876C 21.73 1.231e-20 75- 128
1034	PD02870	RECEPTOR INTERLEUKIN-I PRECURSOR.	PD02870B 18.83 8.835e-11 326- 359
1034	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019A 11.19 4.150e-11 112- 126 PR00019B 11.36 8.000e-11 109-123 PR00019B 11.36 8.500e- 11 184-198 PR00019A 11.19 6.478e-10 187-201 PR00019A 11.19 7.333e-09 63-77
1034	DM00179	w KINASE ALPHA ADHESION T-CELL.	DM00179 13.97 9.609e-09 334- 344
1035	PR00988	URIDINE KINASE SIGNATURE	PR00988A 6.39 6.276e-12 358- 376
1035	BL00567	Phosphoribulokinase proteins.	BL00567A 10.66 6.459e-11 360-

SEQ ID NO:	Database entry ID	Description	Results*
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1038	BL00120	Lipases, serine proteins.	BL00120C 12.62 9.053e-12 95- 106
1038	PR00825	VESPID VENOM ALLERGEN PHOSPHOLIPASE A1 SIGNATURE	PR00825B 14.81 1.371e-10 83- 104
1038	PR00821	TRIACYLGLYCEROL LIPASE FAMILY SIGNATURE	PR00821E 9.64 4.896e-12 19-38 PR00821F 16.10 1.806e-09 118- 134
1044	BL00027	'Homeobox' domain proteins.	BL00027 26.43 5.500e-30 169- 212
1044	BL00032	'Homeobox' antennapedia-type protein.	BL00032C 11.28 5.179e-16 197- 215 BL00032B 10.83 3.060e-15 158-197
1044	PR00024	HOMEOBOX SIGNATURE	PR00024C 7.49 8.071e-13 201- 211 PR00024B 11.27 7.000e-12 191-202
1044	PR00026	ENGRAILED HOMEODOMAIN SIGNATURE	PR00026A 7.47 9.710e-12 153-
1044	PR00031	LAMBDA AND OTHER REPRESSOR HELIX-TURN-HELIX SIGNATURE	PR00031B 16.29 4.724e-10 192- 209
1044	PR00025	HOMEOTIC ANTENNAPEDIA PROTEIN SIGNATURE	PR00025B 11.94 6.434e-10 155- 171
1048	BL01128	Shikimate kinase proteins.	BL01128A 18.84 8.200e-14 7-41
1048	BL00211	ABC transporters family proteins.	BL00211A 12.23 4.600e-09 9-21
1049	PR00014	FIBRONECTIN TYPE III REPEAT SIGNATURE	PR00014C 15.44 1.783e-09 211- 230 PR00014A 8.22 3.045e-09 373-383 PR00014C 15.44 6.087e- 09 309-328
1049	BL00790	Receptor tyrosine kinase class V proteins.	BL00790I 20.01 1.750e-12 642- 673 BL00790I 20.01 6.125e-12 320-351 BL00790I 20.01 6.679e- 09 222-253
1049	PR00096	GLUTAMINE AMIDOTRANSFERASE SUPERFAMILY SIGNATURE	PR00096B 9.72 9.827e-09 689- 701
1050	DM00372	CARCINOEMBRYONIC ANTIGEN PRECURSOR AMINO-TERMINAL DOMAIN.	DM00372C 23.69 4.919e-12 67-103
1053	BL01282	BIR repeat proteins.	BL01282B 30.49 1.000e-11 194- 233
1053	PR00544	PROGESTERONE RECEPTOR SIGNATURE	PR00544F 7.76 3.329e-09 18-35
1057	PR00464	E-CLASS P450 GROUP II SIGNATURE	PR00464A 20.47 9.591e-16 149- 170 PR00464C 18.84 1.000e-15 324-353 PR00464D 17.40 6.250e- 15 353-371 PR00464B 20.41 1.844e-12 205-224
1057	PR00385	P450 SUPERFAMILY SIGNATURE	PR00385A 14.97 1.346e-12 335- 353 PR00385B 10.22 4.130e-11 353-367
1057	PR00463	E-CLASS P450 GROUP I SIGNATURE	PR00463E 17.37 4.814e-11 344- 371
1058	PD02382	RECEPTOR CHAIN PRECURSOR TRANSME.	PD02382A 17.43 9.321e-09 99-
1060	BL00795	Involucrin proteins.	BL00795C 17,06 6.442e-10 905- 950
1060	BL00422	Granins proteins.	BL00422C 16.18 4.255e-10 910- 938 BL00422C 16.18 4.353e-09

entry ID	Description	Results*
		913-941
PF00992	Troponin.	PF00992A 16.67 2.184e-09 900- 935 PF00992A 16.67 5.382e-09 889-924
BL00412	Neuromodulin (GAP-43) proteins.	BL00412D 16.54 7.429e-09 883- 934
PF01140	Matrix protein (MA), p15.	PF01140D 15.54 8.326e-09 903- 938
DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 6.644e-09 603- 636
PR00049	WILM'S TUMOUR PROTEIN SIGNATURE .	PR00049D 0.00 9.643e-10 96-111 PR00049D 0.00 2.525e-09 95-110 PR00049D 0.00 3.898e-09 114- 129 PR00049D 0.00 7.407e-09 97-112
PR00239	MOLLUSCAN RHODOPSIN C- TERMINAL TAIL SIGNATURE	PR00239E 1.58 8.670e-09 100- 112
BL01282	BIR repeat proteins.	BL01282B 30.49 1.000e-11 137- 176
PR00544	PROGESTERONE RECEPTOR SIGNATURE	PR00544F 7.76 3.329e-09 18-35
BL01282	BIR repeat proteins.	BL01282B 30.49 1.000e-11 187- 226
PR00544	PROGESTERONE RECEPTOR SIGNATURE	PR00544F 7.76 3.329e-09 18-35
BL00218	Amino acid permeases proteins.	BL00218D 21.49 7.324e-11 226- 271 BL00218E 23.30 3.475e-09 307-347
BL00994	Bacterial export FHIPEP family proteins.	BL00994A 15.15 1.086e-09 71- 118
PD01066	PROTEIN ZINC FINGER ZINC-FINGER METAL-BINDING NU.	PD01066 19.43 8.385e-33 6-45
BL01030	RNA polymerases M / 15 Kd subunits proteins.	BL01030 23.44 7.480e-10 283- 321
BL00466	TFIIS zinc ribbon domain proteins.	BL00466 25.88 5.622e-09 283- 320
		PD00066 13.92 2.385e-15 271- 284 PD00066 13.92 3.077e-15 243-256 PD00066 13.92 3.077e- 15 320-333 PD00066 13.92 3.077e-15 348-361 PD00066 13.92 3.077e-15 376-389 PD00066 13.92 3.077e-15 617-630 PD00066 13.92 3.077e- 15 701-714 PD00066 13.92 7.923e-15 215-228 PD00066 13.92 8.200e-14 589-602 PD00066 13.92 8.800e-14 729- 742 PD00066 13.92 5.714e-12 542-555 PD00066 13.92 5.71e- 12 561-574 PD00066 13.92 3.739e-11 404-417 PD00066 13.92 1.692e-10 299-312 PD00066 13.92 2.038e-10 488- 501 PD00066 13.92 8.615e-10 645-658 PD00066 13.92 6.700e-
	PF00992 BL00412 PF01140 DM00215 PR00049 PR00239 BL01282 PR00544 BL01282 PR00544 BL00218 BL00994 PD01066 BL01030	PF00992 Troponin. BL00412 Neuromodulin (GAP-43) proteins. PF01140 Matrix protein (MA), p15. DM00215 PROLINE-RICH PROTEIN 3. PR00049 WILM'S TUMOUR PROTEIN SIGNATURE PR00239 MOLLUSCAN RHODOPSIN C- TERMINAL TAIL SIGNATURE BL01282 BIR repeat proteins. PR00544 PROGESTERONE RECEPTOR SIGNATURE BL01282 BIR repeat proteins. PR00544 PROGESTERONE RECEPTOR SIGNATURE BL00218 Amino acid permeases proteins. BL00994 Bacterial export FHIPEP family proteins. PD01066 PROTEIN ZINC FINGER ZINC-FINGER METAL-BINDING NU. BL01030 RNA polymerases M / 15 Kd subunits proteins. BL00466 TFIIS zinc ribbon domain proteins.

SEQ ID NO:	Database entry ID	Description	Results*
1068	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 5.950e-13 388- 405 BL00028 16.07 6.400e-13 444-461 BL00028 16.07 1.692e- 11 227-244 BL00028 16.07 3.423e-11 332-349 BL00028 16.07 6.538e-11 685-702 BL00028 16.07 7.231e-11 713- 730 BL00028 16.07 7.577e-11 573-590 BL00028 16.07 4.300e- 10 601-618 BL00028 16.07 5.500e-10 171-188 BL00028 16.07 5.800e-10 255-272 BL00028 16.07 7.900e-10 657- 674 BL00028 16.07 9.700e-10 526-543 BL00028 16.07 2.029e- 09 283-300 BL00028 16.07 3.829e-09 741-758 BL00028 16.07 6.914e-09 360-377 BL00028 16.07 7.686e-09 416-
1068	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE TRANSFERASE METHYLTRANSFERASE	PR00048A 10.52 4.750e-14 570-584 PR00048A 10.52 2.929e-13 329-343 PR00048A 10.52 5.500e-13 224-238 PR00048A 10.52 5.500e-13 224-238 PR00048A 10.52 5.00e-13 224-238 PR00048A 10.52 1.000e-12 598-612 PR00048A 10.52 5.235e-12 252-266 PR00048A 10.52 5.765e-12 441-455 PR00048A 10.52 7.353e-12 385-399 PR00048A 10.52 7.353e-12 413-427 PR00048A 10.52 7.353e-12 413-427 PR00048A 10.52 7.353e-12 1357-371 PR00048A 10.52 5.263e-11 626-640 PR00048A 10.52 5.737e-11 280-294 PR00048A 10.52 7.632e-11 682-696 PR00048A 10.52 7.632e-11 682-696 PR00048A 10.52 8.579e-11 654-668 PR00048B 6.02 2.125e-10 457-467 PR00048A 10.52 2.565e-10 738-752 PR00048A 10.52 6.087e-10 523-537 PR00048B 6.02 7.188e-10 698-708 PR00048B 6.02 7.188e-10 698-708 PR00048B 6.02 7.750e-10 726-736 PR00048B 6.02 1.000e-09 240-250 PR00048A 10.52 3.520e-09 308-322 PR00048A 10.52 3.520e-09 308-322 PR00048A 10.52 3.560e-09 196-210 PR00048B 6.02 1.000e-08 586-596 PD01427B 22.45 1.545e-11 117-
1070	PF00168	BI. C2 domain proteins.	158 PF00168C 27.49 1.750e-09 202-
1070	PR00360	C2 DOMAIN SIGNATURE	228 PR00360B 13.61 2.227e-09 219-
1075	PR00962	LETHAL(2) GIANT LARVAE PROTEIN	233 PR00962D 10.40 3.054e-10 178-
		SIGNATURE	202
1075	PR00320	G-PROTEIN BETA WD-40 REPEAT	PR00320A 16.74 2.976e-09 181-

SEQ ID NO:	Database entry ID	Description	Results*
		SIGNATURE	196
1078	DM01970	0 kw ZK632.12 YDR313C ENDOSOMAL III.	DM01970B 8.60 2.478e-13 310- 323
1078	BL00678	Trp-Asp (WD) repeat proteins proteins.	BL00678 9.67 1.474e-09 41-52
1078	PR00320	G-PROTEIN BETA WD-40 REPEAT SIGNATURE	PR00320A 16.74 1.931e-11 214- 229 PR00320B 12.19 3.829e-10 214-229 PR00320C 13.01 3.880e- 10 214-229 PR00320C 13.01 4.900e-09 257-272
1079	PF00774	Dihydropyridine sensitive L-type calcium channel (Beta subuni.	PF00774D 10.59 8.396e-09 339- 365
1079	BL01013	Oxysterol-binding protein family proteins.	BL01013D 26.81 8.839e-09 588- 632
1080	BL00615	C-type lectin domain proteins.	BL00615A 16.68 3.160e-11 129- 147
1081	PD01066	PROTEIN ZINC FINGER ZINC-FINGER METAL-BINDING NU.	PD01066 19.43 2.705e-11 47-86
1082	BL00359	Ribosomal protein L11 proteins.	BL00359B 23.07 7.462e-24 160- 201 BL00359C 22.18 6.586e-22 215-249 BL00359A 20.66 4.000e-21 124-160
1082	BL01108	Ribosomal protein L24 proteins.	BL01108A 20.33 1.000e-08 144- 177
1084	PD02462	PROTEIN BOLA TRANSCRIPTION REGULATION AC.	PD02462A 22.48 1.220e-09 104- 139
,	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 7.000e-17 755- 772 BL00028 16.07 6.625e-15 699-716 BL00028 16.07 8.412e- 14 223-240 BL00028 16.07 8.941e-14 167-184 BL00028 16.07 6.850e-13 391-408 BL00028 16.07 1.783e-12 559- 576 BL00028 16.07 2.957e-12 307-324 BL00028 16.07 7.652e- 12 503-520 BL00028 16.07 7.652e-12 811-828 BL00028 16.07 8.043e-12 335-352 BL00028 16.07 1.346e-11 447- 464 BL00028 16.07 2.385e-11 867-884 BL00028 16.07 4.462e- 11 671-688 BL00028 16.07 5.846e-11 587-604 BL00028 16.07 6.192e-11 839-856 BL00028 16.07 6.192e-11 895- 912 BL00028 16.07 8.962e-11 531-548 BL00028 16.07 1.600e- 10 279-296 BL00028 16.07 1.600e-10 363-380 BL00028 16.07 6.100e-10 111-128 BL00028 16.07 6.700e-10 643- 660 BL00028 16.07 8.500e-10 251-268 BL00028 16.07 1.771e- 09 783-800 BL00028 16.07 5.886e-09 475-492
1084	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 4.600e-18 696- 710 PR00048A 10.52 5.091e-15 164-178 PR00048A 10.52 6.727e- 15 836-850 PR00048A 10.52

SEQ ID	Database	Description	Results*
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NO:	entry ID		1.000e-14 220-234 PR00048A 10.52 2.500e-14 444-458 PR00048A 10.52 5.500e-14 556- 570 PR00048A 10.52 9.250e-14 388-402 PR00048A 10.52 1.643e- 13 640-654 PR00048A 10.52 3.571e-13 304-318 PR00048A 10.52 3.571e-13 528-542 PR00048A 10.52 8.071e-13 332- 346 PR00048A 10.52 8.071e-13 808-822 PR00048A 10.52 8.071e-13 808-822 PR00048A 10.52 8.071e-13 864-878 PR00048A 10.52 8.714e-13 500-514 PR00048A 10.52 7.353e-12 892-906 PR00048B 6.02 1.000e-11 292- 302 PR00048B 6.02 1.000e-11 516-526 PR00048B 6.02 1.000e-11 516-526 PR00048B 6.02 1.000e-11 516-526 PR00048B 6.02 1.000e-11 668-2834 PR00048A 10.52 3.842e-11 276-290 PR00048A 10.52 6.684e-11 584-598 PR00048A 10.52 9.053e-11 668-682 PR00048A 10.52 6.870e-10 360-374 PR00048B 6.02 1.474e-09 768-778 PR00048B 6.02 3.368e-09 236-246 PR00048B 6.02 3.368e-09 460-470 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-164 PR00048B 6.02 4.789e-09 152-167 PR00048B 6.02 4.789e-09 152-168 PR00048B 6.02 4.789e-09 152-169 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09 152-162 PR00048B 6.02 4.789e-09
			722 PR00048A 10.52 8.920e-09 780-794
1084	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 1.600e-14 295- 308 PD00066 13.92 1.600e-14 323-336 PD00066 13.92 1.600e- 14 519-532 PD00066 13.92 1.600e-14 547-560 PD00066 13.92 1.600e-14 827-840 PD00066 13.92 1.600e-14 855- 868 PD00066 13.92 5.200e-14 351-364 PD00066 13.92 5.200e- 14 575-588 PD00066 13.92 5.200e- 14 575-588 PD00066 13.92 8.200e-14 883-896 PD00066 13.92 9.400e-14 239-252 PD00066 13.92 2.500e-13 155- 168 PD00066 13.92 2.500e-13 379-392 PD00066 13.92 2.286e- 12 267-280 PD00066 13.92 2.286e-12 491-504 PD00066

SEQ ID NO:	Database entry ID	Description	Results*
			13.92 2.286e-12 799-812 PD00066 13.92 2.714e-12 463- 476 PD00066 13.92 2.714e-12 715-728 PD00066 13.92 2.714e- 12 771-784 PD00066 13.92 3.571e-12 687-700 PD00066 13.92 7.000e-12 407-420 PD00066 13.92 1.000e-10 127- 140 PD00066 13.92 1.000e-08 603-616
1085	PR00679	PROHIBITIN SIGNATURE	PR00679F 8.03 6.478e-28 178- 202 PR00679C 14.44 7.677e-22 107-126 PR00679E 12.82 5.171e- 19 153-173 PR00679D 11.91 9.053e-18 130-147 PR00679G 6.13 7.882e-17 201-218 PR00679B 13.63 2.444e-10 84- 104
1086	PR00245	OLFACTORY RECEPTOR SIGNATURE	PR00245E 12.40 8.286e-12 45-60
1086	PR00237	RHODOPSIN-LIKE GPCR SUPERFAMILY SIGNATURE	PR00237G 19.63 5.814e-09 26-53
1087	PD00126	PROTEIN RÉPEAT DOMAIN TPR NUCLEA.	PD00126A 22.53 6.885e-10 99- 120
1088	BL01145	Ribosomal protein L34e proteins.	BL01145A 13.73 1.000e-12 3-45
1093	BL00154	E1-E2 ATPases phosphorylation site proteins.	BL00154D 12.57 7.387e-09 95- 106
1093	PR00121	SODIUM/POTASSIUM-TRANSPORTING ATPASE SIGNATURE	PR00121E 13.97 9.444e-09 92- 111
1095	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 7.923e-15 439- 452 PD00066 13.92 2.800e-14 411-424 PD00066 13.92 2.800e- 14 467-480 PD00066 13.92 5.800e-14 495-508 PD00066 13.92 5.800e-14 523-536 PD00066 13.92 8.200e-14 355- 368 PD00066 13.92 5.500e-13 579-592 PD00066 13.92 3.143e- 12 551-564 PD00066 13.92 4.857e-12 383-396
1095	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 4.150e-13 367- 384 BL00028 16.07 8.200e-13 563-580 BL00028 16.07 3.348e- 12 479-496 BL00028 16.07 7.652e-12 423-440 BL00028 16.07 8.826e-12 619-636 BL00028 16.07 4.115e-11 451- 468 BL00028 16.07 5.500e-11 395-412 BL00028 16.07 7.231e- 11 591-608 BL00028 16.07 1.600e-10 339-356 BL00028 16.07 2.200e-10 535-552
1095	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 4.375e-16 560- 574 PR00048A 10.52 4.214e-13 476-490 PR00048A 10.52 6.143e- 13 364-378 PR00048B 6.02 6.400e-13 492-502 PR00048B 6.02 1.000e-11 352-362 PR00048B 6.02 1.000e-11 408-

SEQ ID NO:	Database entry ID	Description	Results*
			418 PR00048B 6.02 1.692e-11 548-558 PR00048A 10.52 1.947e- 11 588-602 PR00048A 10.52 3.842e-11 420-434 PR00048B 6.02 4.462e-11 464-474 PR00048A 10.52 6.684e-11 392- 406 PR00048A 10.52 6.684e-11 448-462 PR00048B 6.02 7.231e- 11 436-446 PR00048A 10.52 5.696e-10 532-546 PR00048B 6.02 5.263e-09 576-586 PR00048A 10.52 6.400e-09 504- 518 PR00048A 10.52 6.760e-09 336-350 PR00048A 10.52 7.120e- 09 616-630
1095	PD02462	PROTEIN BOLA TRANSCRIPTION REGULATION AC.	PD02462A 22.48 9.232e-09 472- 507
1097	BL00649	G-protein coupled receptors family 2 proteins.	BL00649C 17.82 9.542e-12 400- 426
1097	PR00249	SECRETIN-LIKE GPCR SUPERFAMILY SIGNATURE	PR00249C 17.08 8.839e-11 402- 426 PR00249A 15.88 7.851e-09 330-355
1097	PR00248	METABOTROPIC GLUTAMATE GPCR SIGNATURE	PR00248E 17.85 9.366e-09 442- 465
1100	BL00479	Phorbol esters / diacylglycerol binding domain proteins.	BL00479B 12.57 8.875e-09 886- 902
1101	PR00205	CADHERIN SIGNATURE	PR00205B 11.39 5.655e-16 255- 273 PR00205A 14.73 1.000e-12 180-196 PR00205B 11.39 4.927e- 10 475-493 PR00205C 13.65 9.438e-10 515-530
1101	BL00232	Cadherins extracellular repeat proteins domain proteins.	BL00232B 32.79 1.000e-40 148- 196 BL00232A 27.72 5.125e-25 54-87 BL00232B 32.79 4.286e-19 257-305 BL00232C 10.65 7.429e- 16 255-273 BL00232B 32.79 1.500e-10 372-420 BL00232C 10.65 6.538e-10 475-493 BL00232C 10.65 7.632e-09 146- 164
1103	BL00122	Carboxylesterases type-B serine proteins.	BL00122A 12.04 3.152e-15 86- 107 BL00122D 12.53 7.097e-14 197-213 BL00122B 16.84 1.346e- 13 148-159 BL00122C 7.91 9.550e-10 168-179
1105	BL00018	EF-hand calcium-binding domain proteins.	BL00018 7.41 2.800e-10 217-230 BL00018 7.41 8.650e-10 133-146
1105	PR00450	RECOVERIN FAMILY SIGNATURE	PR00450E 12.14 3.438e-15 174- 193 PR00450B 11.76 5.574e-13 82-102 PR00450D 16.58 6.714e- 13 152-172 PR00450C 12.22 6.864e-12 128-150 PR00450G 15.33 6.591e-09 224-245
1108	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 6.143e-12 927- 940 PD00066 13.92 7.000e-09 343-356
1108	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 3.250e-13 911- 928 BL00028 16.07 9.100e-13

SEQ ID NO:	Database entry ID	Description	Results*
			327-344 BL00028 16.07 3.348e- 12 939-956 BL00028 16.07 5.500e-11 270-287 BL00028 16.07 4.000e-10 298-315 BL00028 16.07 6.700e-10 968- 985 BL00028 16.07 9.700e-10 191-208 BL00028 16.07 9.700e- 10 355-372 BL00028 16.07 4.857e-09 384-401 BL00028 16.07 7.171e-09 242-259
1108	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048B 6.02 6.000e-12 924- 934 PR00048A 10.52 4.522e-10 324-338 PR00048A 10.52 4.913e- 10 908-922 PR00048A 10.52 7.652e-10 936-950 PR00048A 10.52 4.600e-09 965-979 PR00048A 10.52 7.480e-09 352- 366
1108	DM01970	0 kw ZK632.12 YDR313C ENDOSOMAL III.	DM01970A 8.50 9.100e-09 910- 917
1109	DM01857	5 kw NUCLEOSIDE TRANSPORT DEPENDENT NA.	DM01857B 14.94 6.471e-19 284- 312 DM01857E 18.90 7.313e-18 488-527 DM01857F 12.86 7.045e-15 548-575 DM01857C 15.62 4.500e-14 312-344 DM01857A 20.25 1.667e-13 207- 250 DM01857D 16.80 3.165e-12 372-410
1112	DM01840	kw SPAC24B11.09 R07E5.13.	DM01840B 22.04 1.844e-40 59- 103 DM01840A 10.95 9.571e-13 31-43
1114 1114	BL01115 PR00449	GTP-binding nuclear protein ran proteins. TRANSFORMING PROTEIN P21 RAS SIGNATURE	BL01115A 10.22 3.438e-14 53-97 PR00449A 13.20 9.308e-16 53-75 PR00449C 17.27 8.920e-15 94- 117 PR00449B 14.34 5.680e-10
1114	PR00879	FISH ACETYLCHÖLINESTERASE SIGNATURE	76-93 PR00879A 6.28 1.450e-09 37-43
1114	BL01125	ROK family proteins.	BL01125D 13.61 7.429e-09 214- 227
1115	PF00622	Domain in SPla and the RYanodine Receptor.	PF00622B 21.00 2.500e-13 265- 287
1115	BL00518	Zinc finger, C3HC4 type (RING finger), proteins.	BL00518 12.23 9.571e-10 103- 112
1116	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019A 11.19 5.050e-11 66-80 PR00019B 11.36 6.850e-10 63-77
1116	DM00315	072 RIBONUCLEASE INHIBITOR.	DM00315G 15.85 6.362e-10 84- 120 DM00315G 15.85 3.340e-09 246-282
1117	BL00509	Ras GTPase-activating proteins.	BL00509B 10.28 5.263e-10 429- 440
1117	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 9.357e-10 794- 809 PR00049D 0.00 1.915e-09 793-808 PR00049D 0.00 3.593e- 09 792-807 PR00049D 0.00 5.729e-09 791-806
1117	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 7.559e-09 780- 813

SEQ ID NO:	Database entry ID	Description	Results*
1117	PR00806	VINCULIN SIGNATURE	PR00806A 6.63 8.397e-09 794- 805
1120	PR00720	MAMMALIAN LMW PHOSPHOTYROSINE PROTEIN PHOSPHATASE SIGNATURE	PR00720C 12.41 1.099e-27 88- 109 PR00720B 10.61 4.789e-20 71-87 PR00720A 16.54 2.000e-17 28-41 PR00720E 10.01 1.342e-16 117-139 PR00720D 17.32 1.778e- 15 110-127
1120	PR00719	LMW PHOSPHOTYROSINE PROTEIN PHOSPHATASE SIGNATURE	PR00719A 14.49 3.000e-23 9-27 PR00719C 14.10 5.000e-18 85- 101 PR00719B 14.32 1.346e-15 52-69 PR00719D 17.52 9.654e-15 110-124
1121	PD00131	ATP-BINDING TRANSPORT . TRANSMEMBR.	PD00131B 34.97 7.987e-09 108- 162
1123	BL00615	C-type lectin domain proteins.	BL00615A 16.68 9.526e-13 573- 591
1123	PR00356	TYPE II ANTIFREEZE PROTEIN SIGNATURE	PR00356C 13.33 3.793e-10 591- 609 PR00356D 13.09 5.038e-09 619-636
1123	PR00439	11-S SEED STORAGE PROTEIN FAMILY SIGNATURE	PR00439C 15.32 9.217e-09 332- 353
1127	BL00134	Serine proteases, trypsin family, histidine proteins.	BL00134A 11.96 5.781e-15 493- 510 BL00134B 15.99 4.194e-14 675-699
1127	BL00021	Kringle domain proteins.	BL00021B 13.33 8.984e-12 493- 511
1127	BL00495	Apple domain proteins.	BL00495N 11.04 9.735e-11 667- 702
1127	PR00453	VON WILLEBRAND FACTOR TYPE A DOMAIN SIGNATURE	PR00453A 12.79 5.345e-14 251- 269 PR00453B 14.65 4.682e-10 290-305
1127	PR00722	CHYMOTRYPSIN SERINE PROTEASE FAMILY (SI) SIGNATURE	PR00722A 12.27 9.129e-13 494- 510 PR00722C 10.87 4.273e-11 674-687 PR00722B 12.51 4.000e- 09 554-569
1127	BL01253	Type I fibronectin domain proteins.	BL01253G 11.34 5.348e-09-674- 688
1128	BL00236	Neurotransmitter-gated ion-channels proteins.	BL00236D 25.66 4.000e-30 64- 106
1128	PR00252	NEUROTRANSMITTER-GATED ION CHANNEL FAMILY SIGNATURE	PR00252D 12.29 7.097e-10 71-84
1129	BL00604	Synaptophysin / synaptoporin proteins.	BL00604F 5.96 7.718e-10 367- 412
1129	PR00524	CHOLECYSTOKININ TYPE A RECEPTOR SIGNATURE	PR00524F 5.36 7.415e-09 208- 222
1129	BL01113	CIq domain proteins.	BL01113A 17.99 6.455e-14 158- 185 BL01113A 17.99 5.622e-13 28-55 BL01113A 17.99 1.923e- 12 393-420 BL01113A 17.99 4.462e-12 230-257 BL01113A 17.99 6.538e-12 34-61 BL01113A 17.99 1.000e-11 284- 311 BL01113A 17.99 1.205e-11 31-58 BL01113A 17.99 1.614e- 11 170-197 BL01113A 17.99 5.091e-11 167-194 BL01113A 17.99 6.523e-11 456-483

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		Description	BL01113A 17.99 7.341e-11 411- 438 BL01113A 17.99 1.766e-10 402-429 BL01113A 17.99 2.915e-10 356-383 BL01113A 17.99 6.745e-10 239-266 BL01113A 17.99 7.319e-10 293- 320 BL01113A 17.99 8.085e-10 164-191 BL01113A 17.99 8.660e-10 305-332 BL01113A 17.99 2.038e-09 272-299 BL01113A 17.99 2.212e-09 353- 380 BL01113A 17.99 2.2385e-09 86-113 BL01113A 17.99 2.731e- 09 149-176 BL01113A 17.99 2.904e-09 453-480 BL01113A 17.99 3.423e-09 131-158 BL01113A 17.99 3.423e-09 308- 335 BL01113A 17.99 3.769e-09 396-423 BL01113A 17.99 3.769e-09 450-477 BL01113A 17.99 3.942e-09 25-52 BL01113A 17.99 3.942e-09 173- 200 BL01113A 17.99 4.981e-09 43-70 BL01113A 17.99 5.327e-09 19-46 BL01113A 17.99 5.500e-09 320-
j			347 BL01113A 17.99 6.192e-09 143-170 BL01113A 17.99
			7.231e-09 224-251 BL01113A 17.99 8.269e-09 245-272
1129	BL00420	Speract receptor repeat proteins domain proteins.	BL00420A 20.42 3.571e-13 31-60 BL00420A 20.42 9.082e-13 113- 142 BL00420A 20.42 8.691e-11 311-340 BL00420A 20.42 4.098e-10 125-154 BL00420A 20.42 4.541e-10 158-187 BL00420A 20.42 5.279e-10 34-63 BL00420A 20.42 5.426e-10 137- 166 BL00420A 20.42 6.754e-10 49-78 BL00420A 20.42 6.754e-10 49-78 BL00420A 20.42 6.902e- 10 266-295 BL00420A 20.42 7.492e-10 43-72 BL00420A 20.42 8.082e-10 25-54 BL00420A 20.42 9.852e-10 167- 196 BL00420A 20.42 2.800e-09 170-199 BL00420A 20.42 2.938e-09 414-443 BL00420A 20.42 3.492e-09 52-81 BL00420A 20.42 5.015e-09 305- 334 BL00420A 20.42 5.569e-09 37-66 BL00420A 20.42 7.923e- 09 459-488 BL00420A 20.42 8.477e-09 335-364 BL00420A 20.42 8.754e-09 83-112 BL00420A 20.42 9.446e-09 287- 316 BL00420A 20.42 9.862e-09 290-319

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1132	PR00042	FOS TRANSFORMING PROTEIN SIGNATURE	PR00042E 9.69 7.652c-09 234- 258
1135	PD00066	PROTEIN ZÍNC-FINGER METAL-BINDI.	PD00066 13.92 9.400e-14 365- 378 PD00066 13.92 6.143e-12 335-348 PD00066 13.92 2.174e- 11 395-408
1135	BL00970	Nuclear transition protein 2 proteins.	BL00970B 10.09 3.069e-10 55-81
1135	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 3.746e-09 223- 238 PR00049D 0.00 3.746e-09 224-239 PR00049D 0.00 3.898e- 09 220-235
1135	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 6.885e-11 349- 366 BL00028 16.07 5.886e-09 379-396
1135	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048B 6.02 6.211e-09 362- 372
1135	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 8.169e-09 221- 254
1136	BL00962	Ribosomal protein S2 proteins.	BL00962D 22.51 5.500e-35 131- 175 BL00962C 15.90 9.591e-17 106-124 BL00962B 36.15 9.060e- 15 40-94
1136	PR00395	RIBOSOMAL PROTEIN S2 SIGNATURE	PR00395C 16.17 1.000e-17 106- 124 PR00395D 13.04 7.000e-17 131-149 PR00395F 10.56 6.400e- 16 169-184 PR00395E 14.46 4.103e-11 148-160
1137	BL00152	ATP synthase alpha and beta subunits proteins.	BL00152A 15.38 5.109e-14 128- 154
1139	BL00152	ATP synthase alpha and beta subunits proteins.	BL00152B 21.40 4.273e-37 124- 162 BL00152A 15.38 8.364e-23 67-93
1139	PR00449	TRANSFORMING PROTEIN P21 RAS SIGNATURE	PR00449A 13.20 2.862e-09 139- 161
1140	BL00152	ATP synthase alpha and beta subunits proteins.	BL00152B 21.40 2.000e-32 185- 223 BL00152A 15.38 8.364e-23 128-154
1140	PR00449	TRANSFORMING PROTEIN P21 RAS SIGNATURE	PR00449A 13.20 7.672e-09 200- 222
1141	PR00493	BREAST CANCER TYPE I SUSCEPTIBILITY PROTEIN SIGNATURE	PR00493G 7.57 1.184e-10 652- 673
1141	PD00078	REPEAT PROTEIN ANK NUCLEAR ANKYR.	PD00078B 13.14 3.700e-10 494- 507
1141	BL00518	Zinc finger, C3HC4 type (RING finger), proteins.	BL00518 12.23 3.667e-09 102- 111
1141	PF00791	Domain present in ZO-1 and Unc5-like netrin receptors.	PF00791B 28.49 9.047e-15 501- 556 PF00791B 28.49 9.386e-14 468-523 PF00791C 20.98 9.814e- 10 515-554 PF00791C 20.98 7.618e-09 482-521
1141	PF00023	Ank repeat proteins.	PF00023A 16.03 3.500e-12 534- 550 PF00023A 16.03 7.857e-11 501-517 PF00023B 14.20 9.591e- 09 497-507
1143	BL00301	GTP-binding elongation factors proteins.	BL00301A 12.41 1.750e-12 72-84
1143	PR00315	GTP-BINDING ELONGATION FACTOR SIGNATURE	PR00315A 11.81 4.000e-14 72-86 PR00315B 11.66 7.600e-10 118-

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			127
1145	BL00745	Prokaryotic-type class I peptide chain release factors signat.	BL00745C 13.66 7.398e-18 59- 106
1146	BL00745	Prokaryotic-type class I peptide chain release factors signat.	BL00745C 13.66 4.706e-12 59- 106
1149	BL00660	Band 4.1 family domain proteins.	BL00660B 17.33 4.800e-27 136- 176 BL00660A 31.50 7.911e-20 52-105 BL00660C 23.36 2.241e- 19 215-259 BL00660E 23.41 9.647e-13 301-324
1149	PR00935	BAND 4.1 PROTEIN FAMILY SIGNATURE	PR00935C 11.98 4.300e-17 154- 175 PR00935D 10.20 1.281e-14 215-232 PR00935B 10.58 6.108e- 12 141-155 PR00935A 10.16 3.605e-10 76-89
1149	PR00661	ERM FAMILY SIGNATURE	PR00661C 9.53 3.616e-10 150- 172
1153	PR00109	TYROSINE KINASE CATALYTIC DOMAIN SIGNATURE	PR00109B 12.27 1.882e-12 155- 174
1153	BL00107	Protein kinases ATP-binding region proteins.	BL00107A 18.39 1.818e-15 155- 186 BL00107B 13.31 8.714e-11 221-237
1153	BL00239	Receptor tyrosine kinase class II proteins.	BL00239B 25.15 1.774e-09 90- 138
1153	BL00240	Receptor tyrosine kinase class III proteins.	BL00240E 11.56 6.657e-09 141- 179
1153	BL00479	Phorbol esters / diacylglycerol binding domain proteins.	BL00479C 12.01 9.000e-09 200- 213
1155	PR00837	ALLERGEN V5/TPX-1 FAMILY SIGNATURE	PR00837C 17.21 4.064e-11 155- 172 PR00837A 14.77 4.960e-10 78-97 PR00837B 11.64 1.310e-09 133-147
1155	BL01009	Extracellular proteins SCP/Tpx-1/Ag5/PR-1/Sc7 proteins.	BL01009D 14.19 8.759e-12 156- 177 BL01009C 10.54 1.730e-09 133-147
1155	PR00199	ANNEXIN TYPE III SIGNATURE	PR00199F 16.19 9.483e-09 113- 140
1156	BL01115	GTP-binding nuclear protein ran proteins.	BL01115A 10.22 8.909e-13 4-48
1156	PR00449	TRANSFÓRMING PROTEIN P21 RAS SIGNATURE	PR00449A 13.20 2.059e-19 4-26 PR00449C 17.27 1.000e-18 44-67 PR00449B 14.34 6.727e-11 27-44
1159	BL00175	Phosphoglycerate mutase family phosphohistidine proteins.	BL00175D 27.67 4.000e-40 367- 419 BL00175C 23.75 6.870e-28 316-348 BL00175A 15.42 8.200e-19 252-272 BL00175B 12.60 8.714e-17 299-312
1159	BL00300	SRP54-type proteins GTP-binding domain proteins.	BL00300B 20.56 7.554e-11 38-84
1160	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 1.000e-14 547- 560 PD00066 13.92 2.200e-14 353-366 PD00066 13.92 3.400e- 14 241-254 PD00066 13.92 6.400e-14 325-338 PD00066 13.92 1.500e-13 297-310 PD00066 13.92 6.500e-13 465- 478 PD00066 13.92 7.500e-13 437-450 PD00066 13.92 8.500e-
	L	265	13 409-422 PD00066 13.92

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			2.714e-12 269-282 PD00066 13.92 3.571e-12 381-394 PD00066 13.92 7.577e-10 519- 532
1160	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 3.647e-14 531- 548 BL00028 16.07 9.471e-14 309-326 BL00028 16.07 1.900e- 13 559-576 BL00028 16.07 7.750e-13 477-494 BL00028 16.07 2.174e-12 337-354 BL00028 16.07 6.478e-12 225- 242 BL00028 16.07 8.043e-12 421-438 BL00028 16.07 9.217e- 12 365-382 BL00028 16.07 2.038e-11 253-270 BL00028 16.07 7.231e-11 281-298 BL00028 16.07 6.100e-10 449- 466 BL00028 16.07 8.800e-10 503-520 BL00028 16.07 5.371e- 09 393-410
1160	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 7.429e-13 418-432 PR00048A 10.52 2.588e-12 362-376 PR00048A 10.52 3.647e-12 556-570 PR00048A 10.52 3.647e-12 556-570 PR00048A 10.52 8.412e-12 474-488 PR00048A 10.52 9.471e-12 222-236 PR00048A 10.52 2.421e-11 306-320 PR00048B 6.02 4.462e-11 350-360 PR00048A 10.52 5.737e-11 250-264 PR00048A 10.52 7.632e-11 528-542 PR00048A 10.52 8.579e-11 278-292 PR00048A 10.52 9.308e-11 572-582 PR00048B 6.02 9.308e-11 572-582 PR00048B 6.02 9.308e-11 572-582 PR00048B 6.02 1.000e-10 406-416 PR00048A 10.52 2.565e-10 334-348 PR00048B 6.02 4.938e-10 378-388 PR00048B 10.52 5.304e-10 390-404 PR00048B 6.02 8.313e-10 238-248 PR00048B 6.02 8.313e-10 238-248 PR00048B 6.02 1.947e-09 434-444 PR00048B 6.02 1.947e-09 434-444 PR00048B 6.02 2.421e-09 462-472 PR00048B 6.02 3.368e-09 322-332 PR00048B 6.02 3.368e-09 322-332 PR00048B 6.02 6.211e-09 294-304
1161	PD02331	CYCLIN CELL CYCLE DIVISION PROTE.	PD02331C 13.84 1.913e-11 9-36
1161	BL00048	Protamine P1 proteins.	BL00048 6.39 3.700e-09 165-192 BL00048 6.39 4.938e-09 281-308
1161	DM01206	CORONAVIRUS NUCLEOCAPSID PROTEIN.	DM01206B 10.69 9.328e-11 169- 189 DM01206B 10.69 1.247e-10 248-268 DM01206B 10.69 7.781e-10 200-220 DM01206B 10.69 6.582e-09 246-266
1163	BL00239	Receptor tyrosine kinase class II proteins.	BL00239B 25.15 3.915e-15 100- 148

SEQ ID	Database	Description	Results*
NO:	entry ID	TVD OOD TO WALAST CATAL VICE	PRO0100P 10 07 (000 12 100
1163	PR00109	TYROSINE KINASE CATALYTIC DOMAIN SIGNATURE	PR00109B 12.27 6.362e-13 165- 184
1163	BL00479	Phorbol esters / diacylglycerol binding domain proteins.	BL00479C 12.01 1.000e-10 208- 221
1163	BL00107	Protein kinases ATP-binding region proteins.	BL00107A 18.39 3.250e-26 165- 196 BL00107B 13.31 3.647e-09 230-246
1164	BL01013	Oxysterol-binding protein family proteins.	BL01013D 26.81 9.135e-22 501- 545 BL01013A 25.14 4.600e-14 220-256 BL01013C 9.97 4.906e- 12 330-340 BL01013B 11.33 3.017e-11 287-298
1167	BL00289	Pentaxin family proteins.	BL00289A 30.36 6.850e-26 25-56 BL00289E 18.00 6.684e-14 78-93
1167	PR00895	PENTAXIN SIGNATURE	PR00895A 14.53 1.563e-15 48-63 PR00895G 14.55 5.846e-12 75-87
1167	PR00468	PLANT LIPOXYGENASE SIGNATURE	PR00468I 13.42 9.870e-09 59-74
1168	PR00217	43 KD POSTSYNAPTIC PROTEIN SIGNATURE	PR00217C 10.91 7.527e-09 547- 563
1169	PR00756	MEMBRANE ALANYL DIPEPTIDASE (MI) FAMILY SIGNATURE	PR00756D 10.58 1.529e-21 367- 383 PR00756B 14.06 5.737e-16 253-269 PR00756A 12.90 1.237e- 13 205-221 PR00756E 11.91 4.094e-13 386-399 PR00756C 11.60 6.108e-11 331-342
1169	BL00142	Neutral zinc metallopeptidases, zinc-binding region proteins.	BL00142 8.38 5.500e-10 367-378
1170	DM01688	2 POLY-IG RECEPTOR.	DM01688I 14.97 6.279e-09 75- 123
1172	PR00308	TYPE I ANTIFREEZE PROTEIN SIGNATURE	PR00308C 3.83 2.523e-10 40-50 PR00308C 3.83 8.892e-10 41-51 PR00308C 3.83 8.892e-10 42-52 PR00308B 4.28 6.671e-09 40-52
1172	PR00833	POLLEN ALLERGEN POA PI SIGNATURE	PR00833H 2.30 7.115e-09 30-45
1179	BL00300	SRP54-type proteins GTP-binding domain proteins.	BL00300C 25.57 6.000e-09 215- 269
1180	BL00514	Fibrinogen beta and gamma chains C- terminal domain proteins.	BL00514C 17.41 9.463e-19 233- 270 BL00514E 14.28 7.750e-12 293-310 BL00514D 15.35 9.824e-11 274-287 BL00514G 15.98 4.273e-10 356-386 BL00514H 14.95 6.217e-09 391- 416
1181	BL01158	Macrophage migration inhibitory factor family proteins.	BL01158A 21.81 4.130e-30 2-47 BL01158B 17.07 4.316e-29 47-74
1182	BL00456	Sodium:solute symporter family proteins.	BL00456A 22.59 6.250e-40 46- 101 BL00456C 24.55 6.586e-40 184-239 BL00456B 18.94 8.125e- 25 122-152 BL00456D 6.92 5.500e-10 476-486
1185	PR00830	ENDOPEPTIDASE LA (LON) SERINE PROTEASE (S16) SIGNATURE	PR00830A 8.41 4.780e-14 241- 261
1185	PR00918	CALICIVIRUS NON-STRUCTURAL POLYPROTEIN FAMILY SIGNATURE	PR00918A 13.76 1.976e-10 231- 252 PR00918A 13.76 2.084e-10 495-516
1185	PR00300	ATP-DEPENDENT CLP PROTEASE ATP-	PR00300A 9.56 5.857e-12 237-

BINDING SUBUNIT SIGNATURE 256 PR00300A 9.56 5.909e-09 501-520 501-520	SEQ ID NO:	Database entry ID	Description	Results*
Tell BL00370 PEP-utilizing enzymes phosphorylation site proteins proteins proteins. BL00370A 5.71 6.294e-09 79-8: proteins proteins proteins. BL00113A 12.74 7.231e-09 502 519				501-520
S19	1185	BL00370	proteins proteins.	BL00370A 5.71 6.294e-09 79-87
371 BL00674B 4.46 1.205e-17 234-256 BL00674C 22.60 2.055 17 531-574 BL00674B 2.46 4.886e-17 498-520 BL00674C 22.60 2.055 17 531-574 BL00674B 4.46 4.886e-17 498-520 BL00674B 4.46 4.886e-17 498-520 BL00674B 1.524 2.800e-15 402-422 BL00674C 22.60 7.600e-09 270 313 BL00674C 22.60 7.600e-09 270 313 BL00676C 22.60 7.600e-09 270 313 BL00675C 24.86 9.775e-09 237 287 287 287 287 288 287 288 287 288 288	1185	BL00113		BL00113A 12.74 7.231e-09 502- 519
257 BL00675 Sigma-54 interaction domain proteins ATP-binding region A proteins. BL00675A 24.86 9.775e-09 237.	1185	BL00674	AAA-protein family proteins.	234-256 BL00674C 22.60 2.059e- 17 531-574 BL00674B 4.46 4.886e-17 498-520 BL00674E 15.24 2.800e-15 402-422 BL00674C 22.60 7.600e-09 270-
Binding region A proteins. 281	1185	BL00870		BL00870A 11.78 9.534e-09 210- 257
PR00165	1185	BL00675		BL00675A 24.86 9.775e-09 237- 281
1186 BL00219 Anion exchangers family proteins. BL00219B 14.47 2.707e-24 296-23 341-380 BL00219C 17.29 5.426e-23 341-380 BL00219K 12.73 9.100e-23 831-873 BL00219M 9.98 9.299e-23 916-962 BL00219H 10.06 5.705e-21 618-666 BL00219I 6.16 4.968e-20 741-795 BL00219A 17.13 7.833e-19 122-154 BL00219E 11.63 2.988e-16 485-525 BL00219F 10.52 8.953e-14 525-549 BL00219F 10.52 8.953e-14 525-549 BL00219F 10.52 8.953e-14 525-549 BL00219F 10.52 8.953e-14 525-549 BL00219D 10.66 6.942e-12 978-1022 BL00219D 15.15 5.286e-11 380-416 BL00219O 14.02 3.377e-09 102: 1063 BL00219O 14.02 3.377e-09 102: 1063 PD01168E 9.47 7.833e-09 452-467 ALANYL. 467 ALA			ANION EXCHANGER SIGNATURE	849 PR00165A 9.84 6.423e-13 495-518 PR00165B 15.26 9.090e- 11 520-541 PR00165F 10.39 6.663e-10 639-658
340 BL00219C 17.29 5.426e-23 341-380 BL00219K 12.73 9.100e-23 831-873 BL00219M 9,98 9.299e-23 916-962 BL00219H 10.06 5.705e-21 618 666 BL00219H 10.06 5.705e-21 618 666 BL00219H 10.06 5.705e-21 618 666 BL00219H 10.05 2.705e-21 618 666 BL00219H 10.05 2.705e-21 618 666 BL00219H 10.05 2.705e-21 618 666 BL00219H 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.86 8.163e-13 578-617 BL00219G 12.86 8.163e-13 578-617 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL00219G 10.52 8.953e-14 525- 549 BL001154 8.14 4.296e-10 446-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 442-4 DM01724 8.14 7.987e-09 442-4 DM01724 8.14 7.987e-09 442-4 DM01724 8.14 7.987e-09 442-4 DM01724 8.14 7.987e-09 442-4 DM01724 8.14 7.987e-09 442-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 7.987e-09 442-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 7.987e-09 442-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 4.296e-10 446-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 438-4 DM01724 8.14 7.987e-09 406-4 DM01724 8.14 7.987e-09 406-4 DM01724 8.14 7.987e-09	1186	BL00291	Prion protein.	1
ALANYL. 467				9.100e-23 831-873 BL00219M 9.98 9.299e-23 916-962 BL00219H 10.06 5.705e-21 618-666 BL00219I 6.16 4.968e-20 741-795 BL00219A 17.13 7.833e-19 122-154 BL00219E 11.63 2.988e-16 485-525 BL00219F 10.52 8.953e-14 525-549 BL00219G 12.86 8.163e-13 578-617 BL00219L 18.71 8.423e-13 873-912 BL00219N 10.66 6.942e-12 978-1022 BL00219D 15.15 5.286e-11 380-416 BL00219O 14.02 3.377e-09 1023-1063
DM01724 8.14 6.447e-09 442-46			ALANYL.	467
1187 PR00025 HOMEOTIC ANTENNAPEDIA PROTEIN SIGNATURE	1186	DM01724	kw ALLERGEN POLLEN CIMI HOL-LI.	DM01724 8.14 4.296e-10 446-466 DM01724 8.14 6.447e-09 442-462 DM01724 8.14 7.987e-09 438-458
1187 PR00025 HOMEOTIC ANTENNAPEDIA PROTEIN SIGNATURE	1187	BL00027	'Homeobox' domain proteins.	BL00027 26.43 7.943e-14 65-108
1187 PR00028 POU DOMAIN SIGNATURE PR00028D 17.92 2.286e-09 49-7 1189 BL00115 Eukaryotic RNA polymerase II heptapeptide repeat proteins. BL00115Z 3.12 2.047e-10 469-518 1192 BL01215 Mrp family proteins. BL01215A 9.75 2.436e-09 466-493			HOMEOTIC ANTENNAPEDIA PROTEIN SIGNATURE	PR00025B 11.94 4.000e-11 51-67
1187 PR00028 POU DOMAIN SIGNATURE PR00028D 17.92 2.286e-09 49-7 1189 BL00115 Eukaryotic RNA polymerase II heptapeptide repeat proteins. BL00115Z 3.12 2.047e-10 469-518 1192 BL01215 Mrp family proteins. BL01215A 9.75 2.436e-09 466-493	1187	BL00032	'Homeobox' antennapedia-type protein.	BL00032B 10.83 7.660e-10 54-93
1189 BL00115 Eukaryotic RNA polymerase II heptapeptide BL00115Z 3.12 2.047e-10 469- 1192 BL01215 Mrp family proteins. BL01215A 9.75 2.436e-09 466- 493 493 469-			POU DOMAIN SIGNATURE	PR00028D 17.92 2.286e-09 49-70
493			Eukaryotic RNA polymerase II heptapeptide repeat proteins.	BL00115Z 3.12 2.047e-10 469-
1192 BL00567 Phosphoribulokinase proteins. BL00567A 10.66 5.757e-09 470-	1192	BL01215	Mrp family proteins.	493
	1192	BL00567	Phosphoribulokinase proteins.	BL00567A 10.66 5.757e-09 470-

SEQ ID NO:	Database entry ID	Description	Results*
			489
1192	PR00364	DISEASE RESISTANCE PROTEIN SIGNATURE	PR00364A 8.19 7.341e-09 470- 486
1192	BL00113	Adenylate kinase proteins.	BL00113A 12.74 8.062e-09 472- 489
1193	PR00303	PREPROTEIN TRANSLOCASE SECY SUBUNIT SIGNATURE	PR00303G 10.45 8.759e-09 88- 111
1197	PF00429	ENV polyprotein (coat polyprotein).	PF00429 31.08 8.015e-16 415-465
1198	BL00415	Synapsins proteins.	BL00415N 4.29 7.115e-10 224- 268
1198	PR00239	MOLLUSCAN RHODOPSIN C- TERMINAL TAIL SIGNATURE	PR00239E 1.58 1.307e-09 253- 265
1198	PR00211	GLUTELIN SIGNATURE	PR00211B 0.86 7.537e-12 245- 266 PR00211B 0.86 2.644e-10 251-272 PR00211B 0.86 4.083e- 09 233-254 PR00211B 0.86 7.583e-09 239-260
1198	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 5.688e-12 227-260 DM00215 19.43 6.250e-12 225-258 DM00215 19.43 5.235e-11 232-265 DM00215 19.43 5.941e-11 242-275 DM00215 19.43 4.375e-10 236-269 DM00215 19.43 4.857e-10 222-255 DM00215 19.43 5.179e-10 230-263 DM00215 19.43 8.554e-10 237-270 DM00215 19.43 2.068e-09 215-248 DM00215 19.43 3.898e-09 235-268 DM00215 19.43 4.508e-09 240-273 DM00215 19.43 5.576e-09 231-264 DM00215 19.43 6.339e-09 220-253 DM00215 19.43 9.847e-09 218-251
1200	BL00183	Ubiquitin-conjugating enzymes proteins.	BL00183 28.97 4.326e-22 81-129
1202	BL00237	G-protein coupled receptors proteins.	BL00237A 27.68 4.214e-16 108- 148 BL00237C 13.19 3.323e-11 245-272 BL00237B 5.28 2.227e- 09 182-194
1202	PR00237	RHODOPSIN-LIKE GPCR SUPERFAMILY SIGNATURE	PR00237F 13.57 4.600e-13 250- 275 PR00237E 13.03 1.000e-12 174-198 PR00237G 19.63 7.469e- 12 288-315 PR00237B 13.50 7.207e-11 75-97 PR00237C 15.69 7.750e-09 122-145
1203	BL00237	G-protein coupled receptors proteins.	BL00237A 27.68 4.214e-16 108- 148 BL00237C 13.19 3.323e-11 280-307 BL00237B 5.28 2.227e- 09 217-229
1203	PR00237	RHODOPSIN-LIKE GPCR SUPERFAMILY SIGNATURE	PR00237F 13.57 4.600e-13 285- 310 PR00237E 13.03 1.000e-12 209-233 PR00237G 19.63 7.469e- 12 323-350 PR00237B 13.50 7.207e-11 75-97 PR00237C 15.69 7.750e-09 122-145
1207	PR00259	TRANSMEMBRANE FOUR FAMILY SIGNATURE	PR00259B 14.81 3.769e-21 50-77 PR00259C 16.40 4.000e-20 77- 106 PR00259A 9.27 3.600e-16
	L	260	100 11002371 7.27 3.0006-10

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· 	 		12-36
1207	BL00421	Transmembrane 4 family proteins.	BL00421B 17.62 7.261e-36 56-95 BL00421A 11.79 8.313e-16 8-27
1207	PR00164	ABC-2 TYPE TRANSPORT SYSTEM MEMBRANE PROTEIN SIGNATURE	PR00164D 13.90 1.486e-09 9-34
1208	BL00282	Kazal serine protease inhibitors family proteins.	BL00282 16.88 7.207e-14 562- 585
1208	BL00216	Sugar transport proteins.	BL00216B 27.64 3.250e-10 267- 317
1209	PF00922	Vesiculovirus phosphoprotein.	PF00922A 19.17 7.724e-09 88- 122
1214	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 7.143e-10 17-32
1214	PD01351	PROTEIN REPEAT NEUROPILAMENT TRIPL.	PD01351B 13.72 9.518e-10 18-44 PD01351B 13.72 3.758e-09 24-50
1214	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 5.576e-09 5-38
1214	PR00910	LUTEOVIRUS ORF6 PROTEIN SIGNATURE	PR00910A 2.51 7.857e-09 17-30
1215	BL00612	Osteonectin domain proteins.	BL00612E 13.12 3.947e-11 379- 424
1215	BL00484	Thyroglobulin type-1 repeat proteins proteins.	BL00484C 17.01 3.854e-11 131- 146 BL00484B 9.04 1.491e-10 238-252 BL00484C 17.01 8.560e- 10 258-273 BL00484B 9.04 3.850e-09 111-125
1216	BL00223	Annexins repeat proteins domain proteins.	BL00223A 15.59 1.000e-33 147- 181 BL00223A 15.59 1.435e-16 75-109 BL00223C 24.79 3.928e- 15 134-189
1216	PR00196	ANNEXIN FAMILY SIGNATURE	PR00196C 10.36 3.571e-25 151- 173 PR00196A 11.16 7.300e-24 84-107 PR00196B 10.68 4.808e- 16 124-141 PR00196A 11.16 6.236e-14 156-179 PR00196E 9.19 1.000e-12 155-176 PR00196G 11.72 5.829e-11 199- 213 PR00196C 10.36 7.913e-11
1216	PR00201	ANNEXIN TYPE V SIGNATURE	PR00201D 10.49 8.729e-14 151- 173 PR00201A 6.05 1.976e-13 84-107 PR00201G 11.02 3.847e- 12 155-182 PR00201A 6.05 8.241e-12 156-179 PR00201H 12.04 4.889e-10 199-213
1216	PR00198	ANNEXIN TYPE II SIGNATURE	PR00198D 7.65 7.787e-21 151- 173 PR00198B 8.71 3.880e-17 84-107 PR00198C 14.32 2.688e- 11 124-141 PR00198G 8.09 7.033e-10 155-176
1216	PR00200	ANNEXIN TYPE IV SIGNATURE	PR00200E 10.00 5.030e-19 151- 173 PR00200G 9.43 5.546e-14 155-182 PR00200B 7.39 4.653e- 11 156-179 PR00200B 7.39 4.857e-10 84-107 PR00200H 13.68 9.663e-10 199-213
1216	PR00202	ANNEXIN TYPE VI SIGNATURE	PR00202D 5.58 6.793e-14 151- 173 PR00202G 8.01 5.545e-13 155-182 PR00202B 11.44 2.782e- 10 155-179 PR00202B 11.44

SEQ ID NO:	Database entry ID	Description	Results*
			5.206e-09 83-107
1216	PR00197	ANNEXIN TYPE I SIGNATURE	PR00197B 7.56 4.960e-29 84-107 PR00197D 7.50 3.000e-26 151- 173 PR00197A 8.68 7.577e-20 35-51 PR00197C 7.50 1.000e-19
1016	PR00199	ANNEXIN TYPE III SIGNATURE	124-141 PR00197F 9.03 7.128e- 10 155-176 PR00197D 7.50 6.250e-09 79-101
1216	FR00199	ANNEAIN I TPE III SIGNATURE	PR00199D 5.65 9.297e-17 151- 173 PR00199B 6.86 2.915e-13 84-107 PR00199B 6.86 1.265e-11 156-179 PR00199G 9.09 4.351e- 11 156-182 PR00199D 5.65 3.641e-09 79-101 PR00199C 13.84 9.571e-09 124-141
1217	BL00223	Annexins repeat proteins domain proteins.	BL00223B 28.47 1.000e-40 188- 238 BL00223A 15.59 1.000e-33 119-153 BL00223A 15.59 1.435e-16 47-81 BL00223C 24.79 3.928e-15 106-161
1217	PR00201	ANNEXIN TYPE V SIGNATURE	PR00201D 10.49 8.729e-14 123- 145 PR00201A 6.05 1.976e-13 56-79 PR00201G 11.02 3.847e-12 127-154 PR00201A 6.05 8.241e- 12 128-151 PR00201E 12.37 3.317e-11 206-233 PR00201H 12.04 4.889e-10 171-185
1217	PR00198	ANNEXIN TYPE II SIGNATURE	PR00198D 7.65 7.787e-21 123- 145 PR00198B 8.71 3.880e-17 56-79 PR00198E 14.67 5.286e-15 206-233 PR00198C 14.32 2.688e- 11 96-113 PR00198G 8.09 7.033e-10 127-148
1217	PR00196	ANNEXIN FÁMILY SIGNATURE	PR00196D 21.86 1.000e-27 206- 233 PR00196C 10.36 3.571e-25 123-145 PR00196A 11.16 7.300e- 24 56-79 PR00196B 10.68 4.808e-16 96-113 PR00196A 11.16 6.236e-14 128-151 PR00196E 9.19 1.000e-12 127- 148 PR00196G 11.72 5.829e-11 171-185 PR00196C 10.36 7.913e- 11 51-73 PR00196C 10.36 8.750e-10 282-304
1217	PR00202	ANNEXIN TYPE VI SIGNATURE	PR00202D 5.58 6.793e-14 123- 145 PR00202G 8.01 5.545e-13 127-154 PR00202E 13.00 8.740e- 11 206-233 PR00202B 11.44 2.782e-10 127-151 PR00202B 11.44 5.206e-09 55-79
1217	PR00197	ANNEXIN TYPE I SIGNATURE	PR00197E 11.89 1.794e-32 206- 233 PR00197B 7.56 4.960e-29 56-79 PR00197D 7.50 3.000e-26 123-145 PR00197A 8.68 7.577e- 20 7-23 PR00197C 7.50 1.000e- 19 96-113 PR00197F 9.03 7.128e-10 127-148 PR00197D 7.50 6.250e-09 51-73

SEQ ID NO:	Database entry ID	Description	Results*
1217	PR00200	ANNEXIN TYPE IV SIGNATURE	PR00200E 10.00 5.030e-19 123- 145 PR00200G 9.43 5.546e-14 127-154 PR00200B 7.39 4.653e- 11 128-151 PR00200F 13.72 7.094e-11 206-233 PR00200B 7.39 4.857e-10 56-79 PR00200H 13.68 9.663e-10 171-185 PR00200E 10.00 8.842e-09 282- 304
1217	PR00199	ANNEXIN TYPE III SIGNATURE	PR00199D 5.65 9.297e-17 123- 145 PR00199F 16.19 4.391e-15 206-233 PR00199B 6.86 2.915e- 13 56-79 PR00199B 6.86 1.265e- 11 128-151 PR00199G 9.09 4.351e-11 128-154 PR00199D 5.65 3.641e-09 51-73 PR00199C 13.84 9.571e-09 96-113
1218	BL00223	Annexins repeat proteins domain proteins.	BL00223A 15.59 1.000e-33 119- 153 BL00223A 15.59 1.435e-16 47-81 BL00223C 24.79 3.928e-15 106-161
1218	PR00196	ANNEXIN FAMILY SIGNATURE	PR00196C 10.36 3.571e-25 123- 145 PR00196A 11.16 7.300e-24 56-79 PR00196B 10.68 4.808e-16 96-113 PR00196A 11.16 6.236e- 14 128-151 PR00196E 9.19 1.000e-12 127-148 PR00196G 11.72 5.829e-11 171-185 PR00196C 10.36 7.913e-11 51-73
1218	PR00201	ANNEXIN TYPE V SIGNATURE	PR00201D 10.49 8.729e-14 123- 145 PR00201A 6.05 1.976e-13 56-79 PR00201G 11.02 3.847e-12 127-154 PR00201A 6.05 8.241e- 12 128-151 PR00201H 12.04 4.889e-10 171-185
1218	PR00198	ANNEXIN TYPE II SIGNATURE	PR00198D 7.65 7.787e-21 123- 145 PR00198B 8.71 3.880e-17 56-79 PR00198C 14.32 2.688e-11 96-113 PR00198G 8.09 7.033e-10 127-148
1218	PR00200	ANNEXIN TYPE IV SIGNATURE	PR00200E 10.00 5.030e-19 123- 145 PR00200G 9.43 5.546e-14 127-154 PR00200B 7.39 4.653e- 11 128-151 PR00200B 7.39 4.857e-10 56-79 PR00200H 13.68 9.663e-10 171-185
1218	PR00202	ANNEXIN TYPE VI SIGNATURE	PR00202D 5.58 6.793e-14 123- 145 PR00202G 8.01 5.545e-13 127-154 PR00202B 11.44 2.782e- 10 127-151 PR00202B 11.44 5.206e-09 55-79
1218	PR00197	ANNEXIN TYPE I SIGNATURE	PR00197B 7.56 4.960e-29 56-79 PR00197D 7.50 3.000e-26 123- 145 PR00197A 8.68 7.577e-20 7- 23 PR00197C 7.50 1.000e-19 96- 113 PR00197F 9.03 7.128e-10 127-148 PR00197D 7.50 6.250e- 09 51-73

SEQ ID NO:	Database entry ID	Description	Results*
1218	PR00199	ANNEXIN TYPE III SIGNATURE	PR00199D 5.65 9.297e-17 123- 145 PR00199B 6.86 2.915e-13 56-79 PR00199B 6.86 1.265e-11 128-151 PR00199G 9.09 4.351e- 11 128-154 PR00199D 5.65 3.641e-09 51-73 PR00199C 13.84 9.571e-09 96-113
1221	BL00086	Cytochrome P450 cysteine heme-iron ligand proteins.	BL00086 20.87 8.615e-27 423- 455
1221	PR00465	E-CLASS P450 GROUP IV SIGNATURE	PR00465F 13.37 8.468e-12 393- 412
1221	PR00359	B-CLASS P450 SIGNATURE	PR00359I 11.13 7.261e-11 433- 445
1221	PR00463	E-CLASS P450 GROUP I SIGNATURE	PR00463I 15.02 9.571e-21 433- 457 PR00463G 18.24 6.760e-19 388-413 PR00463E 17.37 6.595e- 17 304-331 PR00463F 17.63 7.568e-12 347-366 PR00463B 17.50 7.692e-12 79-101 PR00463D 14.02 8.875e-11 284- 302 PR00463C 12.85 6.932e-10 171-190
1221	PR00464	E-CLASS P450 GROUP II SIGNATURE	PR00464G 12.41 2.588e-12 398- 414 PR00464E 18.28 3.077e-10 342-363 PR00464I 14.64 3.106e- 10 433-457 PR00464H 13.32 4.635e-09 420-434 PR00464D 17.40 5.787e-09 313-331 PR00464C 18.84 5.808e-09 284- 313
1221	PR00385	P450 SUPERFAMILY SIGNATURE	PR00385E 12.66 9.100e-14 433- 445 PR00385A 14.97 5.696e-13 295-313 PR00385B 10.22 6.400e- 09 313-327
1221	PR00408	MITOCHONDRIAL P450 SIGNATURE	PR00408D 15.44 6.831e-09 295- 313
1222	PR00385	P450 SUPERFAMILY SIGNATURE	PR00385A 14.97 5.696e-13 295- 313
1222	PR00463	E-CLASS P450 GROUP I SIGNATURE	PR00463B 17.50 7.692e-12 79- 101 PR00463D 14.02 8.875e-11 284-302 PR00463C 12.85 6.932e- 10 171-190
1222	PR00464	E-CLASS P450 GROUP II SIGNATURE	PR00464C 18.84 5.808e-09 284- 313
1222	PR00408	MITOCHONDRIAL P450 SIGNATURE	PR00408D 15.44 6.831e-09 295- 313
1223	BL00477	Alpha-2-macroglobulin family thiolester region proteins.	BL00477A 13.50 9.182e-19 70-99
1225	BL00500	Thymosin beta-4 family proteins.	BL00500 9.77 2.565e-28 2-42
1227	PR00320	G-PROTEIN BETA WD-40 REPEAT SIGNATURE	PR00320A 16.74 4.971e-10 231- 246 PR00320C 13.01 8.200e-10 231-246 PR00320B 12.19 9.486e- 10 231-246 PR00320B 12.19 3.475e-09 188-203 PR00320B 12.19 4.600e-09 315-330 PR00320C 13.01 4.900e-09 315- 330
1227	PR00319	BETA G-PROTEIN (TRANSDUCIN)	PR00319B 11.47 9.143e-09 315-

SEQ ID NO:	Database entry ID	Description	Results*
		SIGNATURE	330
1227	BL00678	Trp-Asp (WD) repeat proteins proteins.	BL00678 9.67 1.600e-10 233-244 BL00678 9.67 1.000e-08 317-328
1236	PF00580	UvrD/REP helicase.	PF00580D 13.15 8.920e-13 670- 684 PF00580E 13.89 2.800e-11 867-886 PF00580F 8.62 9.438e- 10 913-926
1237	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019B 11.36 1.000e-09 64-78 PR00019A 11.19 8.000e-09 90- 104
1238	PD00126	PROTEIN REPEAT DOMAIN TPR NUCLEA.	PD00126A 22.53 5.500e-10 229- 250
1243	DM01206	CORONAVIRUS NUCLEOCAPSID PROTEIN.	DM01206B 10.69 4.759e-09 464- 484
1243	BL00315	Dehydrins proteins.	BL00315A 9.35 1.000e-08 389- 417
1245	BL00972	Ubiquitin carboxyl-terminal hydrolases family 2 proteins.	BL00972A 11.93 8.054e-15 191- 209
1246	PF00023	Ank repeat proteins.	PF00023A 16.03 9.500e-12 347- 363 PF00023A 16.03 8.500e-10 283-299 PF00023A 16.03 8.875e- 10 184-200
1246	PF00791	Domain present in ZO-1 and Unc5-like netrin receptors.	PF00791B 28.49 1.989e-13 217- 272 PF00791B 28.49 6.044e-13 117-172 PF00791B 28.49 4.316e- 12 184-239 PF00791B 28.49 9.432e-12 250-305 PF00791B 28.49 6.243e-10 84-139 PF00791C 20.98 4.971e-09 98- 137
1246	BL00906	Uroporphyrinogen decarboxylase proteins.	BL00906D 24.33 7.750e-09 212- 256
1248	BL00415	Synapsins proteins.	BL00415Q 2.23 8.297e-09 13-49
1250	BL01113	C1q domain proteins.	BL01113B 18.26 2.500e-13 841- 877
1252	BL01248	Laminin-type EGF-like (LE) domain proteins.	BL01248 11.02 7.171c-12 258- 271 BL01248 11.02 7.943e-12 325-338
1252	PR00011	TYPE III EGF-LIKE SIGNATURE	PR00011D 14.03 7.000c-17 376- 395 PR00011A 14.06 1.000c-14 376-395 PR00011B 13.08 5.167c- 14 376-395 PR00011C 24.25 8.468c-14 395-424 PR00011D 14.03 9.739c-09 249-268
1253	BL00164	Enolase proteins.	BL00164A 11.58 2.800e-28 41-64
1253	PR00148	ENOLASE SIGNATURE	PR00148A 10.11 1.783e-18 44-59
1255	BL01153	NOL1/NOP2/sun family proteins.	BL01153D 19.69 8.322e-14 102- 128 BL01153C 13.67 6.507e-10 51-65
1256	BL00892	HIT family proteins.	BL00892B 16.86 1.000e-20 130- 154 BL00892A 18.17 6.657e-20 64-95
1256	PR00332	HISTIDINE TRIAD FAMILY SIGNATURE	PR00332B 13.62 3.000e-16 76-95 PR00332C 7.37 4.600e-14 143- 154 PR00332A 10.15 7.375e-12 55-72
1257	PF00791	Domain present in ZO-1 and Unc5-like netrin	PF00791B 28.49 4.146e-10 73-

SEQ ID NO:	Database entry ID	Description	Results*
		receptors.	128
1258	BL00615	C-type lectin domain proteins.	BL00615B 12.25 5.200e-12 166- 180
1259	BL00071	Glyceraldehyde 3-phosphate dehydrogenase proteins.	BL00071B 21.70 1.000e-40 80- 126 BL00071C 11.81 1.000e-40 146-181 BL00071D 19.39 3.118e-25 184-239 BL00071E 11.48 4.600e-24 308-329 BL00071A 5.81 2.607e-14 5-17
1259	PR00078	GLYCERALDEHYDE-3-PHOSPHATE DEHYDROGENASE SIGNATURE	PR00078B 7.45 3.250e-24 146- 165 PR00078D 11.49 2.800e-21 231-249 PR00078E 10.50 6.211e- 16 271-287 PR00078A 10.38 1.000e-15 111-125 PR00078C 15.99 6.211e-11 173-190
1262	PR00926	MITOCHONDRIAL CARRIER PROTEIN SIGNATURE	PR00926F 17.75 2.688e-10 15-38 PR00926D 10.53 6.625e-10 21-40
1262	PR00927	ADENINE NUCLEOTIDE TRANSLOCATOR I SIGNATURE	PR00927E 14.93 6.143e-10 44-66 PR00927B 14.66 9.870e-10 265- 287 PR00927B 14.66 5.685e-09 46-68
1262	BL00215	Mitochondrial energy transfer proteins.	BL00215A 15.82 6.250e-17 13-38 BL00215A 15.82 1.600e-15 230- 255 BL00215A 15.82 5.974e-13 108-133 BL00215B 10.44 7.600e- 09 275-288
1263	PR00654	ANGIOTENSINOGEN SIGNATURE	PR00654A 15.64 1.540e-26 23-44 PR00654D 10.48 3.538e-26 153- 175 PR00654F 15.16 8.071e-26 255-275 PR00654E 9.81 2.241e- 25 194-215 PR00654C 9.50 5.500e-21 115-135
1263	BL00284	Serpins proteins,	BL00284C 28.56 9.514e-21 254- 296 BL00284E 19.15 9.710e-16 439-464 BL00284A 15.64 8.147e-14 113-137 BL00284D 16.34 1.837e-12 361-388 BL00284B 17.99 7.500e-11 229- 250
1264	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 8.071e-17 34-57
1265	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 7.600e-16 34-57
1266	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 2.800e-16 31-54
1267	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 9.400e-16 34-57
1268	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290B 13.17 4.000e-21 282- 300 BL00290A 20.89 4.600e-16 34-57 BL00290A 20.89 2.421e- 13 225-248
1269	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 4.600e-16 34-57
1271	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 8.071e-17 34-57
1272	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 4.600e-16 34-57
1273	BL00290	Immunoglobulins and major	BL00290A 20.89 4.600e-16 34-57

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110.	entry 1D	histocompatibility complex proteins.	
1274	PF00651	BTB (also known as BR-C/Ttk) domain proteins.	PF00651 15.00 2.500e-14 46-59
1274	DM00099	4 kw A55R REDUCTASE TERMINAL DIHYDROPTERIDINE.	DM00099B 14.73 6.063e-09 300- 310
1274	PR00501	KELCH REPEAT SIGNATURE	PR00501A 8.25 7.750e-11 472- 486 PR00501A 8.25 7.955e-09 328-342
1281	BL00972	Ubiquitin carboxyl-terminal hydrolases family 2 proteins.	BL00972A 11.93 3.919e-15 101- 119 BL00972B 9.45 7.577e-10 180-190
1285	PF00789	Domain present in ubiquitin-regulatory proteins.	PF00789B 19.70 5.941e-09 213- 234
1286	PF00789	Domain present in ubiquitin-regulatory proteins.	PF00789B 19.70 5.941e-09 259- 280
1287	PR00625	DNAJ PROTEIN FAMILY SIGNATURE	PR00625A 12.84 3.000e-19 19-39 PR00625B 13.48 2.756e-17 47-68
1287	BL00636	Nt-dnaJ domain proteins.	BL00636A 8.07 7.600e-19 23-40 BL00636B 15.11 6.870e-15 47-68
1288	BL00518	Zinc finger, C3HC4 type (RING finger), proteins.	BL00518 12.23 5.714e-10 24-33
1289	PR00500	POLÝCYSTIC KIDNEY DISEASE PROTEIN SIGNATURE	PR00500I 9.22 1.107e-31 2810- 2833 PR00500G 3.68 1.087e-30 2525-2548 PR00500H 17.80 1.107e-29 2662-2684 PR00500E 6.99 1.106e-27 2350-2370 PR00500F 9.44 1.108e-26 2483- 2503
1289	PF00801	PKD domain proteins.	PF00801B 23.63 9.217e-26 1055- 1083 PF00801A 13.49 6.276e-11 222-235 PF00801B 23.63 3.087e- 10 719-747 PF00801B 23.63 6.609e-10 1652-1680
1291	BL00415	Synapsins proteins.	BL00415N 4.29 5.401e-09 136- 180
1292	PD00930	PROTEIN GTPASE DOMAIN ACTIVATION.	PD00930B 33.72 2.800e-23 229- 270 PD00930A 25.62 5.021e-12 125-151
1292	PF00620	GTPase-activator protein for Rho-like GTPases.	PF00620B 14.20 7.000e-12 178- 195
1293	BL00023	Type II fibronectin collagen-binding domain proteins.	BL00023 24.31 8.043e-34 281- 318 BL00023 24.31 5.320e-32 223-260 BL00023 24.31 5.800e- 29 340-377
1293	BL00142	Neutral zinc metallopeptidases, zinc-binding region proteins.	BL00142 8.38 1.000e-12 398-409
1293	PR00138	MATRIXIN SIGNATURE	PR00138D 16.56 5.500e-30 398-424 PR00138C 16.41 1.000e-29 164-193 PR00138B 15.82 5.875e-16 141-157 PR00138A 15.14 1.000e-15 94-108 PR00138E 6.01 8.472e-11 431-445
1293	BL00024	Hemopexin domain proteins.	BL00024C 22.98 1.000e-40 163- 212 BL00024D 17.28 4.316e-36 392-424 BL00024B 21.53 7.545e- 33 115-149 BL00024F 11.30 2.895e-18 486-507 BL00024A 11.49 3.667e-12 94-105

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			BL00024G 13.31 4.857e-12 525- 538 BL00024E 7.58 2.263e-10 431-445
1293	PR00480	ASTACIN FAMILY SIGNATURE	PR00480B 15.41 1.771e-09 393- 412
1293	PR00013	FIBRONECTIN TYPE II REPEAT SIGNATURE	PR00013C 12.29 7.136e-19 372-388 PR00013C 12.29 6.464e-18 313-329 PR00013C 12.29 5.500e-16 255-271 PR00013B 14.75 4.375e-12 355-368 PR00013A 12.26 1.973e-11 344-354 PR00013A 12.26 6.595e-11 227-237 PR00013B 14.75 8.568e-10 296-309 PR00013A 12.26 2.167e-09 285-295 PR00013B 14.75 2.588e-09 238-251
1293	BL00546	Matrixins cysteine switch.	BL00546B 20.11 3.368e-40 164- 208 BL00546C 16.41 6.400e-31 392-424 BL00546A 19.62 6.523e-19 74-104 BL00546E 10.23 7.947e-13 486-507 BL00546F 12.40 5.339e-09 525- 538
1294	BL00023	Type II fibronectin collagen-binding domain proteins.	BL00023 24.31 8.043e-34 281- 318 BL00023 24.31 5.320e-32 223-260 BL00023 24.31 5.800e- 29 340-377
1294	BL00546	Matrixins cysteine switch.	BL00546B 20.11 3.368e-40 164- 208 BL00546C 16.41 6.400e-31 392-424 BL00546A 19.62 6.523e-19 74-104
1294	PR00138	MATRIXIN SIGNATURE	PR00138D 16.56 5.500e-30 398- 424 PR00138C 16.41 1.000e-29 164-193 PR00138B 15.82 5.875e- 16 141-157 PR00138A 15.14 1.000e-15 94-108
1294	BL00142	Neutral zinc metallopeptidases, zinc-binding region proteins.	BL00142 8.38 1.000e-12 398-409
1294	BL00024	Hemopexin domain proteins.	BL00024C 22.98 1.000e-40 163- 212 BL00024D 17.28 4.316e-36 392-424 BL00024B 21.53 7.545e- 33 115-149 BL00024A 11.49 3.667e-12 94-105
1294	PR00480	ASTACIN FAMILY SIGNATURE	PR00480B 15.41 1.771e-09 393- 412
1294	PR00013	FIBRONECTIN TYPE II REPEAT SIGNATURE	PR00013C 12.29 7.136e-19 372-388 PR00013C 12.29 6.464e-18 313-329 PR00013C 12.29 5.500e-16 255-271 PR00013B 14.75 4.375e-12 355-368 PR00013A 12.26 1.973e-11 344-354 PR00013A 12.26 6.595e-11 227-237 PR00013B 14.75 8.568e-10 296-309 PR00013A 12.26 2.167e-09 285-295 PR00013B 14.75 2.588e-09 238-251
1298	DM01354	kw TRANSCRIPTASE REVERSE II ORF2.	DM01354R 8.50 2.969e-22 2115- 2145 DM01354S 11.61 1.692e-14

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			2145-2166
1298	DM01688	2 POLY-IG RECEPTOR.	DM01688D 13.44 8.244e-09 1714-1737
1298	DM00179	w KINASE ALPHA ADHESION T-CELL.	DM00179 13.97 5.737e-10 1807- 1817 DM00179 13.97 7.158e-10 1077-1087 DM00179 13.97 9.053e-10 759-769 DM00179 13.97 9.053e-10 1328-1338 DM00179 13.97 4.130e-09 574- 584 DM00179 13.97 4.130e-09 1431-1441 DM00179 13.97 6.870e-09 1713-1723 DM00179 13.97 7.652e-09 850-860 DM00179 13.97 8.435e-09 2089- 2099
1298	BL00240	Receptor tyrosine kinase class III proteins.	BL00240B 24.70 8.909e-13 623- 647 BL00240B 24.70 1.209e-10 1126-1150 BL00240B 24.70 4.558e-10 124-148 BL00240B 24.70 6.442e-10 529-553 BL00240B 24.70 4.255e-09 1222- 1246 BL00240B 24.70 8.468e-09 995-1019
1298	PD02327	GLYCOPROTEIN ANTIGEN PRECURSOR IMMUNOGLO.	PD02327B 19.84 8.091e-09 1126- 1148 PD02327B 19.84 9.318e-09 1222-1244
1298	PD02870	RECEPTOR INTERLEUKIN-I PRECURSOR.	PD02870B 18.83 1.200e-10 1610-1643 PD02870B 18.83 7.400e-10 2081-2114 PD02870B 18.83 7.800e-10 1069-1102 PD02870B 18.83 5.213e-09 1423-1456 PD02870B 18.83 6.649e-09 67-100 PD02870B 18.83 7.989e-09 1518-1551 PD02870D 15.74 8.564e-09 566-601 PD02870B 18.83 9.521e-09 286-319 PD02870B 18.83 9.904e-09 1258-1291
1299	BL00888	Cyclic nucleotide-binding domain proteins.	BL00888B 14.79 4.706c-18 372- 396 BL00888A 18.03 1.000c-08 354-371
1301	PF00615	Regulator of G protein signalling domain proteins.	PF00615B 16.25 9.625e-16 73-90 PF00615C 10.06 9.206e-12 150- 164
1302	BL00766	Tetrahydrofolate dehydrogenase/cyclohydrolase proteins.	BL00766E 13.78 9.625e-39 191- 228 BL00766C 25.86 4.375e-31 77-125 BL00766D 17.05 5.966e- 25 152-182
1302	PR00085	TETRAHYDROFOLATE DEHYDROGENASE/CYCLOHYDROLASE FAMILY SIGNATURE	PR00085E 15.79 7.000e-26 151- 181 PR00085G 10.74 1.865e-22 208-227 PR00085C 15.23 6.182e- 21 47-69 PR00085D 15.02 2.688e-20 92-113 PR00085F 9.77 6.595e-15 191-208
1303	BL00180	Glutamine synthetase proteins.	BL00180E 17.60 1.000e-40 154- 206 BL00180D 13.26 2.174e-24 119-141 BL00180F 10.05 6.211e- 17 218-231 BL00180G 10.20

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	, , , , , , , , , , , , , , , , , , ,		8.435e-17 307-322 BL00180C 12.14 4.600e-14 102-112 BL00180B 18.03 4.971e-14 68-87 BL00180A 13.20 5.065e-14 32-45
1304	BL00180	Glutamine synthetase proteins.	BL00180F 10.05 6.750e-15 49-62
1306	BL01131	Ribosomal RNA adenine dimethylases proteins.	BL01131A 26.62 1.000e-08 77- 123
1308	DM00191	w SPAC8A4.04C RESISTANCE SPAC8A4.05C DAUNORUBICIN.	DM00191A 8.16 5.440e-09 36-49
1309	DM00191	w SPAC8A4.04C RESISTANCE SPAC8A4.05C DAUNORUBICIN.	DM00191A 8.16 5.440e-09 61-74
1310	PF00606	Herpesviral Glycoprotein B.	PF00606I 20.74 7.894e-09 264- 316
1310	BL01219	Ammonium transporters proteins.	BL01219D 11.63 2.957e-10 217- 241 BL01219F 15.24 8.809e-09 335-360
1310	PR00342	RHESUS BLOOD GROUP PROTEIN SIGNATURE	PR00342G 8.18 1.458e-19 220- 239 PR00342B 11.09 8.657e-13 61-79 PR00342D 8.46 2.857e-12 128-145 PR00342I 4.99 6.016e- 12 285-299 PR00342H 7.61 6.927e-11 250-273 PR00342C 10.10 4.770e-10 90-108 PR00342E 14.49 5.950e-10 151- 175 PR00342F 7.02 1.556e-09 185-201 PR00342J 8.97 7.940e- 09 308-327 PR00342L 7.61 9.600e-09 398-424
1311	PR00209	ALPHA/BETA GLIADIN FAMILY SIGNATURE	PR00209B 4.88 9.080e-11 80-99 PR00209B 4.88 6.967e-10 86-105
1311	DM00406	GLIADIN.	DM00406 7.73 1.400e-09 86-99
1311	PR00501	KELCH REPEAT SIGNATURE	PR00501B 18.88 8.342e-09 440- 455
1312	PR00528	GLUCOCORTICOID RECEPTOR SIGNATURE	PR00528F 9.13 9.063e-09 31-51
1313	PF00622	Domain in SPla and the RYanodine Receptor.	PF00622C 12.62 6.625e-13 759- 773
1313	BL00518	Zinc finger, C3HC4 type (RING finger), proteins.	BL00518 12.23 6.571e-10 30-39 BL00518 12.23 1.667e-09 356- 365
1314	BL00420	Speract receptor repeat proteins domain proteins.	BL00420B 22.67 2.824e-25 37-92 BL00420C 11.90 9.250e-12 122- 133
1314	PR00258	SPERACT RECEPTOR SIGNATURE	PR00258D 14.41 6.333e-11 98- 113 PR00258B 9.63 7.474e-11 52-64 PR00258E 13.33 1.750e-09 121-134 PR00258C 9.05 5.167e- 09 67-78
1315	PR00080	ALCOHOL DEHYDROGENASE SUPERFAMILY SIGNATURE	PR00080A 9.32 8.548e-10 122- 134
1315	BL00766	Tetrahydrofolate dehydrogenase/cyclohydrolase proteins.	BL00766C 25.86 7.632e-09 20-68
1315	PR00081	GLUCOSE/RIBITOL DEHYDROGENASE FAMILY SIGNATURE	PR00081A 10.53 2.452e-13 41-59 PR00081C 15.13 9.229e-09 167- 184
1317	BL00263	Natriuretic peptides proteins.	BL00263 11.87 5.909e-22 129- 147

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1317	PR00711	ATRIAL NATRIURETIC PEPTIDE SIGNATURE	PR00711G 11.75 1.113e-30 128- 151 PR00711B 10.71 7.545e-24 32-51 PR00711D 7.91 1.000e-22 72-90 PR00711F 3.17 2.463e-22 109-128 PR00711C 5.66 7.818e- 22 51-70 PR00711E 6.39 1.000e- 21 92-109 PR00711A 12.00 9.769e-20 11-30
1317	PR00713	C-TYPE NATRIURETIC PEPTIDE SIGNATURE	PR00713C 14.14 1.370e-13 130- 146
1317	PR00710	NATRIURETIC PEPTIDE FAMILY SIGNATURE	PR00710A 10.90 3.250e-14 127- 137 PR00710B 11.08 1.391e-12 136-146
1317	PR00712	BRAIN NATRIURETIC PEPTIDE SIGNATURE	PR00712D 10.52 4.109e-12 128- 139 PR00712E 10.62 7.231e-10 138-152
1318	BL00609	Glycosyl hydrolases family 32 proteins.	BL00609C 13.27 9.270e-11 249- 261
1318	BL01187	Calcium-binding EGF-like domain proteins pattern proteins.	BL01187B 12.04 6.538e-16 757- 773 BL01187B 12.04 7.750e-14 610-626 BL01187B 12.04 8.200e- 14 651-667 BL01187B 12.04 2.029e-10 523-539 BL01187A 9.98 7.429e-10 591-603
1318	PR00907	THROMBOMODULIN SIGNATURE	PR00907B 11.29 6.301e-11 753- 770 PR00907B 11.29 2.636e-10 647-664 PR00907B 11.29 3.524e- 09 519-536 PR00907G 11.63 4.243e-09 651-678
1318	BL01177	Anaphylatoxin domain proteins.	BL01177C 17.39 8.286e-09 517-
1318	PR00010	TYPE II EGF-LIKE SIGNATURE	PR00010C 11.16 1.429e-09 762- 773 PR00010C 11.16 8.500e-09 528-539
1318	BL00022	EGF-like domain proteins.	BL00022B 7.54 1.000e-08 619- 626
1319	PR00237	RHODOPSIN-LIKE GPCR SUPERFAMILY SIGNATURE	PR00237E 13.03 4.000e-10 26-50
1320	BL00125	Serine/threonine specific protein phosphatases proteins.	BL00125D 33.11 9.719e-35 23-78
1320	PR00114	SERINE/THREONINE PHOSPHATASE FAMILY SIGNATURE	PR00114F 17.51 4.706e-16 39-60 PR00114G 17.20 5.421e-12 61-78
1321	BL00453	FKBP-type peptidyl-prolyl cis-trans isomerase proteins.	BL00453B 23.86 6.538e-26 281- 315 BL00453A 15.57 8.364e-12 249-264 BL00453C 9.72 3.250e- 11 323-336
1321	PR00280	CHANNEL FORMING COLICIN SIGNATURE	PR00280A 11.09 8.227e-09 284- 300
1322	PR00497	NEUTROPHIL CYTOSOL FACTOR P40 SIGNATURE	PR00497A 6.92 8.261e-09 310- 328
1322	BL50002	Src homology 3 (SH3) domain proteins profile.	BL50002B 15.18 9.500e-09 45-59
1323	PR00449	TRANSFORMING PROTEIN P21 RAS SIGNATURE	PR00449A 13.20 8.269e-16 34-56
1323	BL01115	GTP-binding nuclear protein ran proteins.	BL01115A 10.22 2.474e-09 34-78
1323	PR00300	ATP-DEPENDENT CLP PROTEASE ATP- BINDING SUBUNIT SIGNATURE	PR00300A 9.56 6.260e-09 36-55

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1323	BL00567	Phosphoribulokinase proteins.	BL00567A 10.66 9.100e-09 35-54
1324	PR00109	TYROSINE KINASE CATALYTIC DOMAIN SIGNATURE	PR00109B 12.27 9.847e-10 314-
1324	PF00242	DNA polymerase (viral) N-terminal domain proteins.	PF00242G 13.52 6.276e-09 748- 788
1324	BL00107	Protein kinases ATP-binding region proteins.	BL00107B 13.31 1.000e-11 381- 397 BL00107A 18.39 8.091e-09 314-345
1325	PR00109	TYROSINE KINASE CATALYTIC DOMAIN SIGNATURE	PR00109B 12.27 9.847e-10 314- 333
1325	PF00242	DNA polymerase (viral) N-terminal domain proteins.	PF00242G 13.52 6.276e-09 721- 761
1325	BL00107	Protein kinases ATP-binding region proteins.	BL00107B 13.31 1.000e-11 381- 397 BL00107A 18.39 8.091e-09 314-345
1326	BL00472	Small cytokines (intercrine/chemokine) C-C subfamily signatur.	BL00472C 20.76 8.225e-09 50-87
1327	PR00705	PAPAIN CYSTEINE PROTEASE (CI) FAMILY SIGNATURE	PR00705A 10.55 8.667e-13 114- 130 PR00705B 10.22 2.385e-10 293-304
1327	BL00139	Eukaryotic thiol (cysteine) proteases cysteine proteins.	BL00139D 9.24 8.125e-17 312- 329 BL00139C 9.23 2.800e-10 292-302 BL00139B 10.19 7.600e- 10 157-166 BL00139A 10.29 2.723e-09 114-124
1328	PR00705	PAPAIN CYSTEINE PROTEASE (CI) FAMILY SIGNATURE	PR00705A 10.55 8.667e-13 155- 171 PR00705B 10.22 2.385e-10 334-345
1328	BL00139	Eukaryotic thiol (cysteine) proteases cysteine proteins.	BL00139D 9.24 8.125e-17 353- 370 BL00139C 9.23 2.800e-10 333-343 BL00139B 10.19 7.600e- 10 198-207 BL00139A 10.29 2.723e-09 155-165
1330	PD01270	RECEPTOR FC IMMUNOGLOBULIN AFFIN.	PD01270A 17.22 7.443e-10 129- 169 PD01270A 17.22 7.387e-09 36-76
1332	BL00412	Neuromodulin (GAP-43) proteins.	BL00412D 16.54 6.772e-10 250- 301
1332	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 2.068e-09 751- 784
1333	BL00232	Cadherins extracellular repeat proteins domain proteins.	BL00232B 32.79 8.594e-35 151- 199 BL00232B 32.79 5.579e-22 260-308 BL00232A 27.72 1.000e-20 57-90 BL00232C 10.65 3.613e-14 258-276 BL00232B 32.79 4.872e-11 377-425 BL00232C 10.65 3.211e-09 480- 498
1333	DM01724	kw ALLERGEN POLLEN CIM1 HOL-LI.	DM01724 8.14 9.113e-10 698-718 DM01724 8.14 6.803e-09 694-714
1333	PR00205	CADHERIN SIGNATURE	PR00205B 11.39 4.545e-15 258- 276 PR00205A 14.73 5.600e-09 183-199 PR00205B 11.39 8.017e- 09 480-498
1335	BL00214	Cytosolic fatty-acid binding proteins.	BL00214B 26.51 9.000e-29 47-92 BL00214A 21.17 1.000e-24 6-32
1335	PR00178	FATTY ACID-BINDING PROTEIN	PR00178C 20.54 3.864e-25 65-93

SEQ ID NO:	Database entry ID	Description	Results*
		SIGNATURE	PR00178A 15.07 7.188e-23 7-28 PR00178D 13.52 6.170e-12 111- 130
1336	PR00452	SH3 DOMAIN SIGNATURE	PR00452B 11.65 8.250e-09 509- 525
1338	BL00972	Ubiquitin carboxyl-terminal hydrolases family 2 proteins.	BL00972A 11.93 8.759e-17 112- 130 BL00972D 22.55 8.116e-12 354-379 BL00972B 9.45 7.088e- 09 193-203
1340	BL00243	Integrins beta chain cysteine-rich domain proteins.	BL00243I 31.77 3.155e-09 1-44
1340	PR00633	CHROMOSOME CONDENSATION REGULATOR RCC1 SIGNATURE	PR00633E 12.18 4.682e-10 182- 199 PR00633G 13.71 1.667e-09 185-204 PR00633H 15.10 3.963e- 09 244-266
1340	BL00625	Regulator of chromosome condensation (RCC1) proteins.	BL00625B 17.69 5.219e-15 179- 213 BL00625B 17.69 9.194e-14 343-377 BL00625A 16.21 4.405e-12 185-214 BL00625A 16.21 5.500e-12 129-158 BL00625A 16.21 7.203e-12 349- 378 BL00625B 17.69 5.778e-10 123-157 BL00625B 17.69 5.034e- 09 285-319
1342	BL00476	Fatty acid desaturases family 1 proteins.	BL00476F 12.75 6.551e-09 45-90
1345	PR00320	G-PROTEIN BETA WD-40 REPEAT SIGNATURE	PR00320A 16.74 9.690e-11 292- 307 PR00320B 12.19 4.343e-10 292-307 PR00320C 13.01 7.840e- 10 292-307
1345	BL00678	Trp-Asp (WD) repeat proteins proteins.	BL00678 9.67 1.000e-09 294-305
1345	BL00225	Crystallins beta and gamma 'Greek key' motif proteins.	BL00225B 18.06 7.273e-22 6-41 BL00225B 18.06 5.673e-14 97- 132 BL00225A 13.82 7.218e-09 61-82
1350	PD01823	PROTEIN INTERGENIC REGION ABC1 PRECURSOR MITOCHONDRION T.	PD01823D 16.66 3.093e-15 21-42 PD01823E 9.30 5.909e-15 75-88
1352	BL00540	Ferritin iron-binding regions proteins.	BL00540A 15.06 1.000e-40 9-50 BL00540B 18.82 1.000e-40 100- 155 BL00540C 13.00 7.500e-15 165-177
1353	PR00294	STREPTOMYCES SUBTILISIN INHIBITOR SIGNATURE	PR00294A 10.44 6.444e-10 159- 186
1353	DM00191	w SPAC8A4.04C RESISTANCE SPAC8A4.05C DAUNORUBICIN.	DM00191D 13.94 7.167e-10 206- 245
1356	BL00428	Cell cycle proteins ftsW / rodA / spoVE proteins.	BL00428A 14.30 3.613e-09 91- 110
1359	BL00142	Neutral zinc metallopeptidases, zinc-binding region proteins.	BL00142 8.38 7.188e-10 389-400
1359	PD01719	PRECURSOR GLYCOPROTEIN SIGNAL RE.	PD01719A 12.89 7.983e-16 550- 578 PD01719B 9.30 1.750e-09 877-885 PD01719A 12.89 3.000e-09 1006-1034
1359	PR00480	ASTACIN FAMILY SIGNATURE	PR00480B 15.41 3.186e-09 384- 403
1360	DM00191	w SPAC8A4.04C RESISTANCE SPAC8A4.05C DAUNORUBICIN.	DM00191D 13.94 6.330e-11 232- 271 DM00191D 13.94 7.728e-11 48-87 DM00191D 13.94 5.000e- 10 112-151 DM00191D 13.94

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			5.667e-10 59-98 DM00191D 13.94 5.667e-10 123-162 DM00191D 13.94 6.583e-10 56- 95 DM00191D 13.94 8.417e-10 280-319 DM00191D 13.94 8.917e-10 192-231 DM00191D 13.94 1.391e-09 224-263 DM00191D 13.94 2.409e-09 208- 247 DM00191D 13.94 4.835e-09 120-159 DM00191D 13.94 6.32e-09 13.94 5.461e-09 211-250 DM00191D 13.94 6.322e-09 80- 119 DM00191D 13.94 7.652e-09 243-282 DM00191D 13.94 8.513e-09 216-255 DM00191D 13.94 9.452e-09 177-216
1360	PF00624	Flocculin repeat proteins.	PF00624J 6.21 3.496e-11 237-292 PF00624J 6.21 6.597e-11 53-108 PF00624J 6.21 4.121e-10 253-308 PF00624J 6.21 5.718e-10 141-196 PF00624F 11.04 1.508e-09 50-86 PF00624J 6.21 3.163e-09 101-156 PF00624J 6.21 3.233e-09 165-220 PF00624J 6.10 5.181e-09 140-170 PF00624F 11.04 6.008e-09 130- 166 PF00624J 6.21 6.093e-09 125-180 PF00624J 6.21 6.163e- 09 221-276 PF00624G 10.91 6.806e-09 45-100 PF00624G 10.91 7.169e-09 181-236 PF00624G 10.91 7.387e-09 221- 276 PF00624J 6.21 8.674e-09 197-252 PF00624J 6.21 8.884e- 09 117-172 PF00624J 6.21 8.884e-09 213-268 PF00624J 6.21 9.512e-09 55-110
1360	BL00115	Eukaryotic RNA polymerase II heptapeptide repeat proteins.	BL00115Z 3.12 6.163e-10 22-71 BL00115Z 3.12 7.618e-09 36-85 BL00115Z 3.12 9.603e-09 241- 290
1363	PF00023	Ank repeat proteins.	PF00023A 16.03 1.321e-09 110- 126
1363	PF00791	Domain present in ZO-1 and Unc5-like netrin receptors.	PF00791B 28.49 7.527e-13 110- 165 PF00791B 28.49 6.119e-09 77-132 PF00791C 20.98 7.529e- 09 91-130
1366	PF00168	C2 domain proteins.	PF00168C 27.49 9.250e-17 320- 346
1366	PR00399	SYNAPTOTAGMIN SIGNATURE	PR00399A 9.52 1.844e-14 148- 164 PR00399C 12.82 8.071e-14 218-234 PR00399B 14.27 2.853e- 13 163-177 PR00399D 14.48 1.871e-11 238-249
1366	PR00360	C2 DOMAIN SIGNATURE	PR00360B 13.61 8.759e-12 337- 351 PR00360A 14.59 3.903e-10 308-321 PR00360B 13.61 4.789e- 10 203-217
		283	

SEQ ID NO:	Database entry ID	Description	Results*
1367	PF00168	C2 domain proteins.	PF00168C 27.49 9.250e-17 320-
1367	PR00399	SYNAPTOTAGMIN SIGNATURE	PR00399A 9.52 1.844c-14 148- 164 PR00399C 12.82 8.071e-14 218-234 PR00399B 14.27 2.853e- 13 163-177 PR00399D 14.48 1.871e-11 238-249
1367	PR00360	C2 DOMAIN SIGNATURE	PR00360B 13.61 8.759e-12 337- 351 PR00360A 14.59 3.903e-10 308-321 PR00360B 13.61 4.789e- 10 203-217
1368	BL00086	Cytochrome P450 cysteine heme-iron ligand proteins.	BL00086 20.87 1.857e-20 444- 476
1368	PR00464	E-CLASS P450 GROUP II SIGNATURE .	PR00464I 14.64 4.375e-17 454- 478 PR00464A 20.47 9.591e-16 130-151 PR00464C 18.84 1.000e- 15 305-334 PR00464D 17.40 6.250e-15 334-352 PR00464H 13.32 8.941e-15 441-455 PR00464F 15.23 9.654e-13 403- 419 PR00464B 20.41 1.844e-12 186-205 PR00464E 18.28 7.907e- 12 363-384 PR00464G 12.41 8.412e-12 419-435
1368	PR00465	E-CLASS P450 GROUP IV SIGNATURE	PR00465H 17.76 6.586e-10 454- 473
1368	PR00385	P450 SUPERFAMILY SIGNATURE	PR00385A 14.97 1.346e-12 316- 334 PR00385B 10.22 4.130e-11 334-348 PR00385D 13.11 7.857e- 10 445-455 PR00385E 12.66 9.438e-10 454-466
1368	PR00463	E-CLASS P450 GROUP I SIGNATURE	PR00463G 18.24 3.605e-14 409- 434 PR00463E 17.37 4.814e-11 325-352 PR00463I 15.02 5.574e- 09 454-478 PR00463H 12.41 7.158e-09 444-455
1370	BL00218	Amino acid permeases proteins.	BL00218D 21.49 9.757e-11 263- 308
1371	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 3.288e-09 35-50
1372	PR00380	KINESIN HEAVY CHAIN SIGNATURE	PR00380A 14.18 4.086e-22 84- 106 PR00380C 13.18 5.286e-17 240-259 PR00380D 9.93 7.698e- 17 290-312 PR00380B 12.64 7.805e-14 207-225
1372	BL00411	Kinesin motor domain proteins.	BL00411G 21.39 7.750e-25 241- 283 BL00411C 15.04 2.500e-22 84-106 BL00411H 15.66 8.235e- 16 289-320 BL00411E 10.43 9.129e-16 135-154 BL00411F 14.77 9.795e-16 198-223 BL00411D 12.13 5.909e-09 114- 125
1373	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 1.915e-09 590- 605
1373	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019A 11.19 5.800e-12 158- 172 PR00019B 11.36 1.000e-10 130-144 PR00019A 11.19 8.826e- 10 133-147 PR00019B 11.36

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			7.120e-09 106-120
1373	PR00500	POLYCYSTIC KIDNEY DISEASE PROTEIN SIGNATURE	PR00500B 7.74 7.821e-09 250- 271
1374	BL00411	Kinesin motor domain proteins.	BL00411H 15.66 7.811e-22 79- 110 BL00411G 21.39 8.683e-22
			31-73
1374	PR00380	KINESIN HEAVY CHAIN SIGNATURE	PR00380C 13.18 2.385e-16 30-49 PR00380D 9.93 3.739e-16 80-102
1376	BL00790	Receptor tyrosine kinase class V proteins.	BL00790E 29.58 6.667e-12 767- 815
1376	PR00010	TYPE II EGF-LIKE SIGNATURE	PR00010C 11.16 5.636e-10 423- 434 PR00010C 11.16 8.071e-09 148-159
1376	BL00022	EGF-like domain proteins.	BL00022B 7.54 8.200e-09 427- 434
1376	PR00907	THROMBOMODULIN SIGNATURE	PR00907B 11.29 7.312e-10 224- 241 PR00907G 11.63 5.297e-09 62-89 PR00907B 11.29 8.354e-09 98-115 PR00907B 11.29 9.451e- 09 334-351
1376	BL01187	Calcium-binding EGF-like domain proteins pattern proteins.	BL01187B 12.04 5.235e-15 62-78 BL01187B 12.04 5.765e-15 418- 434 BL01187B 12.04 3.000e-12 143-159 BL01187B 12.04 7.333e- 12 297-313 BL01187B 12.04 7.000e-11 338-354 BL01187B 12.04 4.857e-10 378-394 BL01187B 12.04 5.886e-10 102- 118 BL01187A 9.98 6.571e-10 321-333 BL01187A 9.98 5.125e- 09 126-138 BL01187A 9.98 9.625e-09 362-374
1377	BL00048	Protamine P1 proteins.	BL00048 6.39 4.038e-09 396-423
1381	BL00107	Protein kinases ATP-binding region proteins.	BL00107A 18.39 8.500e-27 342- 373
1381	PR00109	TYROSINE KINASE CATALYTIC DOMAIN SIGNATURE	PR00109B 12.27 5.412e-12 342- 361
1381	PD00306	PROTEIN GLYCOPROTEIN PRECURSOR RE.	PD00306A 10.26 6.143e-09 25-39
1382	PR00910	LUTEOVIRUS ORF6 PROTEIN SIGNATURE	PR00910A 2.51 6.036e-09 48-61
1388	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019A 11.19 7.261e-10 69-83 PR00019B 11.36 4.600e-09 66-80
1392	BL00018	EF-hand calcium-binding domain proteins.	BL00018 7.41 6.870e-09 42-55
1396	BL00790	Receptor tyrosine kinase class V proteins.	BL00790B 21.59 1.000e-40 61- 113 BL00790C 16.65 1.000e-40 165-219 BL00790K 9.30 1.000e- 40 657-711 BL00790Q 15.61 1.000e-40 855-904 BL00790O 7.68 5.929e-39 797-830 BL00790G 22.06 5.114e-36 376- 420 BL00790R 16.20 7.469e-36 951-995 BL00790E 29.58 7.250e- 35 273-321 BL00790J 14.21 8.200e-33 605-645 BL00790N 13.25 1.214e-31 763-790 BL00790I 20.01 1.931e-29 501- 532 BL00790D 12.41 2.500e-27

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			243-268 BL00790H 13.42 6.478e-27 455-481 BL00790M 8.74 8.683e-25 741-763 BL00790P 12.33 3.755e-24 830- 855 BL00790F 15.90 5.200e-24 339-366 BL00790L 11.16 5.909e- 21 721-741 BL00790A 19.74 1.964e-19 31-53
1396	BL00240	Receptor tyrosine kinase class III proteins.	BL00240F 17.74 9.500e-16 789- 837 BL00240E 11.56 1.439e-15 736-774 BL00240G 28.45 8.793e-15 836-889
1396	BL00107	Protein kinases ATP-binding region proteins.	BL00107A 18.39 3.647e-20 750- 781 BL00107B 13.31 5.091e-13 818-834
1396	PR00109	TYROSINE KINASE CATALYTIC DOMAIN SIGNATURE	PR00109D 17.04 9.100e-22 819-842 PR00109E 14.41 7.429e-19 863-886 PR00109B 12.27 5.125e-18 750-769 PR00109A 15.00 2.895e-13 713-727 PR00109C 12.85 5.235e-12 800-811
1396	BL00239	Receptor tyrosine kinase class II proteins.	BL00239E 17.14 5.426e-27 790- 840 BL00239B 25.15 3.000e-23 684-732 BL00239F 28.15 8.132e- 21 844-889 BL00239D 16.81 2.143e-10 762-788 BL00239C 18.75 3.348e-10 737-760
1396	BL50001	Src homology 2 (SH2) domain proteins profile.	BL50001B 17.40 2.714e-11 747- 768 BL50001D 11.00 7.300e-10 818-829 BL50001C 10.17 1.000e- 09 799-810
1396	PR00014	FIBRONECTIN TYPE III REPEAT SIGNATURE	PR00014C 15.44 8.071e-13 490- 509 PR00014B 14.77 3.400e-10 467-478 PR00014D 12.04 6.824e- 10 508-523 PR00014A 8.22 3.455e-09 342-352
1401	BL00027	'Homeobox' domain proteins.	BL00027 26.43 2.000e-11 84-127
1403	BL01160	Kinesin light chain repeat proteins.	BL01160B 19.54 5.958e-09 387- 441
1404	BL01113	C1q domain proteins.	BL01113B 18.26 2.500e-13 841- 877
1406	BL01206	Amiloride-sensitive sodium channels proteins.	BL01206D 30.58 3.025e-28 363- 412 BL01206G 21.72 6.063e-27 530-576 BL01206F 16.40 7.643e- 15 485-506 BL01206E 20.72 5.650e-14 427-454 BL01206C 12.30 3.455e-12 333-352 BL01206B 13.56 1.205e-10 313- 327
1408	BL01220	Phosphatidylethanolamine-binding protein family proteins.	BL01220B 16.65 1.000e-40 59- 100 BL01220C 14.75 5.846e-34 100-128 BL01220A 22.62 3.400e-31 21-52
1409	BL00815	Alpha-isopropylmalate and homocitrate synthases proteins.	BL00815C 21.36 3.118e-09 786- 815
1412	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 4.051e-09 1-16
1412	PR00806	VINCULIN SIGNATURE	PR00806B 4.28 9.640e-09 3-17
1418	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 5.200e-09 453-

1418	BL00028 PR00048 BL00022	Zinc finger, C2H2 type, domain proteins. C2H2-TYPE ZINC FINGER SIGNATURE	466 BL00028 16.07 7.882e-14 524- 541 BL00028 16.07 8.269e-11 555-572 BL00028 16.07 2.543e- 09 437-454 BL00028 16.07 4.600e-09 408-425 BL00028 16.07 6.657e-09 465-482 PR00048A 10.52 3.160e-09 521- 535 PR00048A 10.52 4.960e-09
1418		C2H2-TYPE ZINC FINGER SIGNATURE	09 437-454 BL00028 16.07 4.600e-09 408-425 BL00028 16.07 6.657e-09 465-482 PR00048A 10.52 3.160e-09 521- 535 PR00048A 10.52 4.960e-09
1418		C2H2-TYPE ZINC FINGER SIGNATURE	535 PR00048A 10.52 4.960e-09
	D1 00022		434-448 PR00048A 10.52 6.760e- 09 552-566 PR00048A 10.52 7.840e-09 462-476
1419	BL00022	EGF-like domain proteins.	BL00022A 7.48 5.000e-09 177- 184 BL00022A 7.48 5.000e-09 241-248 BL00022A 7.48 8.000e- 09 49-56
1419	PR00011	TYPE III EGF-LIKE SIGNATURE	PR00011D 14.03 5.696e-09 182- 201 PR00011D 14.03 6.478e-09 86-105 PR00011D 14.03 9.087e- 09 118-137
1419	DM01842	1 CELLULOSE-BINDING DOMAIN, BACTERIAL TYPE.	DM01842 11.31 9.922e-09 94-141
1421	PR00371	PLAVOPROTEIN PYRIDINE NUCLEOTIDE CYTOCHROME REDUCTASE SIGNATURE	PR00371D 14.55 4.536e-11 385-405
1421	PR00406	CYTOCHROME B5 REDUCTASE SIGNATURE	PR00406D 10.02 6.538e-10 385- 405
1421	PR00409	PHTHALATE DIOXYGENASE REDUCTASE FAMILY SIGNATURE	PR00409F 12.70 2.484e-09 385- 405
1421	PR00466	CYTOCHROME B-245 HEAVY CHAIN SIGNATURE	PR00466E 6.82 6.958e-17 386- 404 PR00466C 10.17 8.244e-09 195-216
1422	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 4.462e-11 1087- 1104
1422	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 6.478e-11 1075- 1088
1422	BL00319	Amyloidogenic glycoprotein extracellular domain proteins.	BL00319C 17.12 4.375e-10 1154- 1188
1422	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 4.522e-10 1084- 1098 PR00048B 6.02 1.474e-09 1072-1082 PR00048A 10.52 6.760e-09 1056-1070
1423	PR00260	BACTERIAL CHEMOTAXIS SENSORY TRANSDUCER SIGNATURE	PR00260C 10.26 9.294e-09 146- 167
1424	BL00845	CAP-Gly domain proteins.	BL00845 16.43 6.442e-21 405- 430 BL00845 16.43 9.820e-19 203-228
1426	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 3.769e-15 369- 382 PD00066 13.92 4.462e-15 285-298 PD00066 13.92 2.800e- 14 257-270 PD00066 13.92 5.200e-14 313-326 PD00066 13.92 8.962e-10 341-354
1426	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 5.050e-13 269- 286 BL00028 16.07 5.050e-13 297-314 BL00028 16.07 2.500e- 10 325-342 BL00028 16.07 5.200e-10 353-370 BL00028

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			16.07 7.000e-10 241-258 BL00028 16.07 9.700e-10 381- 398
1426	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 8.500e-17 266-280 PR00048A 10.52 5.500e-14 294-308 PR00048A 10.52 4.706e-12 350-364 PR00048B 6.02 6.000e-12 310-320 PR00048B 6.02 6.538e-11 394-404 PR00048A 10.52 2.565e-10 238-252 PR00048B 6.02 2.688e-10 254-264 PR00048B 6.02 4.375e-10 338-348 PR00048A 10.52 5.304e-10 378-392 PR00048A 10.52 5.304e-10 378-392 PR00048A 10.52 9.609e-10 322-336 PR00048B 6.02 5.263e-09 282-292 PR00048B 6.02 6.211e-09 366-376
1429	PR00671	INHIBIN BETA B CHAIN SIGNATURE	PR00671C 4.18 5.345e-09 9-29
1431	DM01803	1 HERPESVIRUS GLYCOPROTEIN H.	DM01803A 10.51 6.855e-09 215- 236
1431	BL00226	Intermediate filaments proteins.	BL00226D 19.10 7.400e-09 390- 437
1432	DM01803	1 HERPESVIRUS GLYCOPROTEIN H.	DM01803A 10.51 6.855e-09 251- 272
1432	BL00226	Intermediate filaments proteins.	BL00226D 19.10 7.400e-09 426- 473
1434	PR00545	RETINOIC ACID RECEPTOR SIGNATURE	PR00545A 5.35 9.430e-09 383- 398
1436	BL01238	GDA1/CD39 family of nucleoside phosphatases proteins.	BL01238A 11.72 7.840e-16 76-91
1437	PD00930	PROTEIN GTPASE DOMAIN ACTIVATION.	PD00930B 33.72 2.800e-26 1256- 1297 PD00930A 25.62 3.864e-13 1152-1178
1437	PF00620	GTPase-activator protein for Rho-like GTPases.	PF00620B 14.20 7.000e-12 1205- 1222
1437	PR00683	SPECTRIN PLECKSTRIN HOMOLOGY DOMAIN SIGNATURE	PR00683B 16.62 2.603e-10 946- 968 PR00683D 15.87 2.773e-09 1005-1024
1437	PR00543	OESTROGEN RECEPTOR SIGNATURE	PR00543H 10.86 7.573e-09 556- 576
1437	PF00595	PDZ domain proteins (Also known as DHR or GLGF).	PF00595 13.40 7.600e-09 90-101
1437	BL00275	Shiga/ricin ribosomal inactivating toxins proteins signatu.	BL00275A 12.16 7.677e-09 1226- 1240
1441	BL00223	Annexins repeat proteins domain proteins.	BL00223B 28.47 1.000e-40 140- 190 BL00223C 24.79 1.000e-40 217-272 BL00223A 15.59 5.500e-32 21-55 BL00223A 15.59 4.783e-14 230-264 BL00223C 24.79 2.515e-10 8-63 BL00223A 15.59 6.250e-10 71- 105
1441	PR00199	ANNEXIN TYPE III SIGNATURE	PR00199G 9.09 8.364e-21 239- 265 PR00199F 16.19 5.636e-16 158-185 PR00199D 5.65 5.375e- 14 25-47 PR00199B 6.86 1.574e- 13 30-53 PR00199D 5.65 7.987e-

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			13 234-256 PR00199H 12.62 5.339e-12 282-296 PR00199D 5.65 9.276e-10 75-97
1441	PR00200	ANNEXIN TYPE IV SIGNATURE	PR00200F 13.72 1.118e-35 158- 185 PR00200G 9.43 1.000e-34
	•••		238-265 PR00200B 7.39 1.643e- 29 30-53 PR00200H 13.68 1.766e-18 282-296 PR00200E
			10.00 6.160e-16 75-97 PR00200E 10.00 2.111e-14 25-47 PR00200A 4.93 2.125e-14 5-16 PR00200C
			8.76 1.500e-12 54-63 PR00200E 10.00 2.859e-11 234-256 PR00200G 9.43 5.294e-11 29-56 PR00200D 10.01 9.722e-10 70-87
1441	PR00197	ANNEXIN TYPE I SIGNATURE	PR00197F 9.03 5.250e-16 238- 259 PR00197D 7.50 1.250e-15 25-47 PR00197E 11.89 8.463e-14
			158-185 PR00197D 7.50 1.542e- 12 234-256 PR00197D 7.50 5.451e-10 75-97 PR00197B 7.56 2.206e-09 30-53
1441	PR00198	ANNEXIN TYPE II SIGNATURE	PR00198G 8.09 7.943e-16 238- 259 PR00198D 7.65 2.271e-13 234-256 PR00198D 7.65 9.894e- 13 25-47 PR00198E 14.67 6.381e-11 158-185 PR00198H
			12.05 1.462e-10 282-296 PR00198B 8.71 9.357e-10 30-53 PR00198D 7.65 4.845e-09 75-97
1441	PR00201	ANNEXIN TYPE V SIGNATURE	PR00201G 11.02 9.419e-26 238- 265 PR00201A 6.05 4.770e-16 30-53 PR00201E 12.37 4.103e-15 158-185 PR00201H 12.04 4.375e- 14 282-296 PR00201D 10.49 4.150e-10 75-97 PR00201G 11.02 8.402e-10 29-56 PR00201D 10.49 6.179e-09 25-47
1441	PR00301	70 KD HEAT SHOCK PROTEIN SIGNATURE	PR00301D 15.51 7.395e-09 38-59
1441	PR00196	ANNEXIN FAMILY SIGNATURE	PR00196D 21.86 3.032e-24 158- 185 PR00196E 9.19 8.333e-23 238-259 PR00196A 11.16 9.100e- 21 30-53 PR00196F 13.89 2.714e-15 266-282 PR00196C 10.36 5.167e-15 25-47 PR00196G
			11.72 3.000e-14 282-296 PR00196C 10.36 7.344e-13 234- 256 PR00196C 10.36 1.703e-12 75-97 PR00196G 11.72 9.217e-10 207-221 PR00196F 13.89 4.188e- 09 107-123 PR00196A 11.16 7.840e-09 80-103
1441	PR00202	ANNEXIN TYPE VI SIGNATURE	PR00202G 8.01 4.833e-28 238- 265 PR00202E 13.00 4.643e-16 158-185 PR00202D 5.58 9.604e- 13 75-97 PR00202B 11.44 2.763e-11 29-53 PR00202H 9.20

SEQ ID NO:	Database entry ID	Description	Results*
			4.740e-11 282-296 PR00202D 5.58 1.908e-09 25-47 PR00202G 8.01 9.237e-09 29-56
1444	DM01513	CAMP-DEPENDENT PROTEIN KINASE REGULATORY CHAIN.	DM01513A 13.61 8.568e-14 15- 56
1445	BL00603	Thymidine kinase cellular-type proteins.	BL00603C 30.02 1.000e-40 152- 207 BL00603A 20.71 4.500e-33 63-96 BL00603D 10.53 5.091e- 18 217-232 BL00603B 11.39 3.455e-15 132-147
1446	PD01922	PROTEIN PHOSPHODIESTERASE HYDROL.	PD01922B 21.83 7.328e-14 162- 198
1447	BL00061	Short-chain dehydrogenases/reductases family proteins.	BL00061B 25.79 1.931e-13 99- 137
1448	BL01160	Kinesin light chain repeat proteins.	BL01160B 19.54 5.958e-09 64-
1449	PF00856	SET domain proteins.	PF00856A 26.14 8.579e-11 5-42
1449	PF00628	PHD-finger.	PF00628 15.84 5.500e-10 11-26
1452	BL00030	Eukaryotic RNA-binding region RNP-1 proteins.	BL00030B 7.03 3.400e-10 116- 126
1454	PF00075	RNase H.	PF00075D 10.71 7.000e-11 517- 528 PF00075C 11.58 9.786e-11 484-496 PF00075B 12.56 4.073e- 10 449-460 PF00075A 14.44 2.143e-09 402-419
1454	PR00211	GLUTELIN SIGNATURE	PR00211B 0.86 4.417e-09 138- 159
1456	BL00262	Insulin family proteins.	BL00262B 16.89 8.286e-17 68-88 BL00262A 12.48 4.600e-15 32-50
1456	PR00277	INSULIN B CHAIN SIGNATURE	PR00277A 14.82 2.421e-13 29-43 PR00277B 12.79 2.350e-11 43-56
1456	PR00276	INSULIN A CHAIN SIGNATURE	PR00276A 11.84 4.750e-13 69-79 PR00276B 8.02 7.828e-10 78-88
1457	PR00213	MYELIN PO PROTEIN SIGNATURE	PR00213E 5.51 9.775e-12 264- 289
1459	BL00856	Guanylate kinase proteins.	BL00856C 29.21 2.658e-26 539- 587 BL00856B 9.61 2.946e-18 511-532
1459	PR00452	SH3 DOMAIN SIGNATURE	PR00452B 11.65 2.750e-09 369- 385
1459	PD00289	PROTEIN SH3 DOMAIN REPEAT PRESYNA.	PD00289 9.97 6.586e-09 298-312
1459	PF00595	PDZ domain proteins (Also known as DHR or GLGF).	PF00595 13.40 8.800e-09 295-306
1461	PR00475	HEXOKINASE FAMILY SIGNATURE	PR00475B 14.92 6.143e-26 186- 212 PR00475E 16.08 2.742e-22 327-350 PR00475F 9.68 4.000e- 20 407-430 PR00475A 14.06 3.118e-19 118-135 PR00475C 11.92 6.684e-19 239-256 PR00475G 9.08 1.692e-16 479- 496 PR00475D 13.30 2.653e-13 262-277 PR00475G 9.08 2.650e- 10 32-49
1461	BL00378	Hexokinases proteins.	BL00378C 16.14 1.000e-40 243- 287 BL00378E 22.92 5.821e-40 313-359 BL00378B 14.23 3.647e-

SEQ ID NO:	Database entry ID	Description	Results*
			32 98-135 BL00378F 8.27 2.688e-17 481-496 BL00378D 10.94 1.474e-13 291-303 BL00378A 19.01 8.694e-11 59-87 BL00378F 8.27 3.714e-10 34-49
1464	PR00722	CHYMOTRYPSIN SERINE PROTEASE FAMILY (S1) SIGNATURE	PR00722A 12.27 8.448e-14 56-72
1464	BL00021	Kringle domain proteins.	BL00021B 13.33 1.763e-13 55-73
1464	PR00839	V8 SERINE PROTEASE FAMILY SIGNATURE	PR00839B 11.20 4.945e-09 55-73
1464	BL01253	Type I fibronectin domain proteins.	BL01253E 16.01 6.381e-09 125- 162
1464	BL00134	Serine proteases, trypsin family, histidine proteins.	BL00134A 11.96 3.813e-15 55-72 BL00134B 15.99 7.200e-10 186- 210 BL00134C 13.45 9.206e-09 219-233
1466	BL00291	Prion protein.	BL00291A 4.49 9.379e-09 105- 140
1467	PF00534	Glycosyl transferases group 1.	PF00534B 14.47 9.581e-12 398- 422
1468	PF01105	emp24/gp25L/p24 family.	PF01105B 25.12 2.868e-25 126- 178
1469	PF01105	emp24/gp25L/p24 family.	PF01105B 25.12 2.868e-25 151- 203
1470	PR00305	14-3-3 PROTEIN ZETA SIGNATURE	PR00305A 9.33 9.500e-36 37-67 PR00305E 13.01 4.316e-32 177- 204 PR00305D 16.34 3.647e-30 150-177 PR00305F 15.95 1.964e- 26 204-234 PR00305C 8.68 3.182e-26 115-138 PR00305B 9.99 4.857e-24 84-109 PR00305F 15.95 8.975e-15 215-245
1470	BL00796	14-3-3 proteins.	BL00796C 17.44 1.000e-40 99- 149 BL00796D 17.39 1.000e-40 150-196 BL00796B 10.67 7.000e- 39 37-70 BL00796E 14.15 3.045e-33 198-234 BL00796A 10.52 4.656e-26 5-32 BL00796E 14.15 2.742e-11 209-245
1474	PF00642	Zinc finger C-x8-C-x5-C-x3-H type (and similar).	PF00642 11.59 7.796e-10 676-687 PF00642 11.59 7.055e-09 276-287
1475	PF00588	SpoU rRNA Methylase family.	PF00588B 17.18 8.200e-10 281- 303
1476	BL01160	Kinesin light chain repeat proteins.	BL01160B 19.54 5.653e-09 791- 845
1477	PR00326	GTP1/OBG GTP-BINDING PROTEIN FAMILY SIGNATURE	PR00326A 8.75 4.255e-14 364- 385
1477	BL00306	Caseins alpha/beta proteins.	BL00306B 8.28 1.900e-09 557- 568
1477	PR00318	ALPHA G-PROTEIN (TRANSDUCIN) SIGNATURE	PR00318E 7.23 5.320e-09 220- 230
1479	BL01305	moaA / nifB / pqqE family proteins.	BL01305D 14.97 7.279e-09 7-22
1480	PR00918	CALICIVIRUS NON-STRUCTURAL POLYPROTEIN FAMILY SIGNATURE	PR00918A 13.76 5.807e-09 458- 479
1480	PR00674	LIGHT HARVESTING PROTEIN B CHAIN SIGNATURE	PR00674A 20.10 9.870e-09 133- 154
1481	PR00171	SUGAR TRANSPORTER SIGNATURE	PR00171E 14.87 1.000e-08 73-86

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NO:	entry ID		
1482	DM01418	352 FIBRILLAR COLLAGEN	DM01418A 20.83 5.650e-23 101-
:		CARBOXYL-TERMINAL.	149 DM01418B 22.51 8.500e-11 166-208 DM01418C 20.48
	1		8.655e-10 236-278
1482	BL00291	Prion protein.	BL00291A 4.49 9.349e-10 23-58
1482	BL01113	Clq domain proteins.	BL01113A 17.99 6.114e-11 38-65
			BL01113A 17.99 2.915e-10 35-62
	· ·	1	BL01113A 17.99 6.538e-09 17-44
			BL01113A 17.99 6.712e-09 29-56
1483	DM01418	352 FIBRILLAR COLLAGEN	BL01113A 17.99 8.442e-09 32-59 DM01418A 20.83 5.650e-23 117-
1405	Diviorate	CARBOXYL-TERMINAL.	165 DM01418B 22.51 8.500e-11
			182-224 DM01418C 20.48
			8.655e-10 252-294
1483	BL00291	Prion protein.	BL00291A 4.49 9.349e-10 23-58
1483	BL01113	C1q domain proteins.	BL01113A 17.99 6.114e-11 38-65
	1		BL01113A 17.99 2.915e-10 35-62
			BL01113A 17.99 6.538e-09 17-44 BL01113A 17.99 6.712e-09 29-56
			BL01113A 17.99 8.7128-09 29-36 BL01113A 17.99 8.442e-09 32-59
1484	BL01052	Calponin family repeat proteins.	BL01052B 15.31 3.308e-11 30-56
1484	PR00888	SMOOTH MUSCLE PROTEIN/CALPONIN	PR00888C 12.27 2.141e-09 30-46
		FAMILY SIGNATURE	
1486	BL00795	Involucrin proteins.	BL00795C 17.06 7.600e-09 239- 284
1486	BL00415	Synapsins proteins.	BL00415N 4.29 9.409e-09 818-
	1		862
1490	BL01046	ATP-dependent serine proteases, lon family,	BL01046D 19.61 4.938e-35 452-
		serine active sit.	493 BL01046C 17.03 9.581e-31
			377-421 BL01046B 19.24 4.977e- 29 331-377
1490	PR00830	ENDOPEPTIDASE LA (LON) SERINE	PR00830D 8.08 2.552e-20 767-
		PROTEASE (S16) SIGNATURE	787 PR00830A 8.41 7.545e-18
		, ,	375-395 PR00830E 13.94 8.500e-
	1		15 790-809 PR00830C 8.47
			2.837e-13 737-757 PR00830B
1490	BL01128	Shikimate kinase proteins.	14.73 7.429e-13 654-671 BL01128A 18.84 8.027e-12 371-
1430	BLUTTE	Sinkiniate kinase proteins.	405
1490	PR00300	ATP-DEPENDENT CLP PROTEASE ATP-	PR00300A 9.56 1.254e-10 371-
		BINDING SUBUNIT SIGNATURE	390
1490	PR00819	CBXX/CFQX SUPERFAMILY	PR00819B 10.83 2.350e-10 370-
1400	DY 00674	SIGNATURE	386
1490	BL00674	AAA-protein family proteins.	BL00674B 4.46 8.071e-10 368- 390
1490	PR00364	DISEASE RESISTANCE PROTEIN	PR00364A 8.19 1.818e-09 370-
		SIGNATURE	386
1490	BL00113	Adenylate kinase proteins.	BL00113A 12.74 7.369e-09 372- 389
1491	BL00824	Elongation factor 1 beta/beta/delta chain	BL00824B 9.21 2.338e-09 150-
		proteins.	170
1495	BL00615	C-type lectin domain proteins.	BL00615A 16.68 3.880c-11 47-65
			BL00615B 12.25 2.286e-10 149-
1498	PR00119	P-TYPE CATION-TRANSPORTING	163 PR00119B 13.94 8.714e-12 35-50
.470	1.100119	ATPASE SUPERFAMILY SIGNATURE	PR00119E 8.48 7.716e-11 420-
		The state of the s	440

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1498	PR00120	H+TRANSPORTING ATPASE (PROTON PUMP) SIGNATURE	PR00120C 9.90 7.037e-10 420- 437
1498	BL00154	E1-E2 ATPases phosphorylation site proteins.	BL00154E 20.37 5.275e-19 263- 304 BL00154F 8.23 6.175e-19 417-441 BL00154C 12.38 4.326e- 13 31-50 BL00154D 12.57 5.935e-09 191-202
1499	BL00039	DEAD-box subfamily ATP-dependent helicases proteins.	BL00039D 21.67 3.455e-33 476- 522 BL00039A 18.44 8.548e-23 145-184 BL00039C 15.63 8.500e- 16 277-301 BL00039B 19.19 1.837e-12 191-217
1499	DM01537	kw SKI2W SKI2 NUCLEOLAR HELICASE.	DM01537B 21.63 8.990e-12 450- 497
1499	PF00271	Helicases conserved C-terminal domain proteins.	PF00271 7.99 5.500e-10 507-515
1501	BL00115	Eukaryotic RNA polymerase II heptapeptide repeat proteins.	BL00115Z 3.12 9.669e-09 116- 165
1502	PF00168	C2 domain proteins.	PF00168B 11.83 8.000e-10 38-49
1502	PR00360	C2 DOMAIN SIGNATURE	PR00360A 14.59 6.806e-10 43-56 PR00360B 13.61 2.227e-09 67-81 PR00360B 13.61 5.909e-09 223- 237
1503	PF00791	Domain present in ZO-1 and Unc5-like netrin receptors.	PF00791B 28.49 4.165e-13 780- 835 PF00791B 28.49 6.767e-10 888-943 PF00791C 20.98 8.059e- 09 794-833
1504	PF00023	Ank repeat proteins.	PF00023A 16.03 5.875e-10 437- 453 PF00023A 16.03 7.000e-10 563-579 PF00023A 16.03 8.500e- 10 248-264 PF00023A 16.03 9.250e-10 95-111 PF00023A 16.03 3.250e-09 596-612 PF00023A 16.03 3.893e-09 716- 732 PF00023A 16.03 6.786e-09 62-78 PF00023A 16.03 9.036e-09 496-512
1504	PD00078	REPEAT PROTEIN ANK NUCLEAR ANKYR.	PD00078B 13.14 2.957e-09 88- 101 PD00078B 13.14 5.696e-09 556-569 PD00078B 13.14 9.217e- 09 742-755
1504	PF00791	Domain present in ZO-1 and Unc5-like netrin receptors.	PF00791B 28.49 5.024e-15 215- 270 PF00791B 28.49 7.750e-14 62-117 PF00791B 28.49 9.795e- 14 530-585 PF00791B 28.49 9.505e-13 683-738 PF00791B 28.49 7.253e-12 95-150 PF00791B 28.49 2.636e-11 716- 771 PF00791C 20.98 5.696e-11 697-736 PF00791B 28.49 3.359e- 10 404-459 PF00791B 28.49 5.369e-10 248-303 PF00791B 28.49 6.767e-10 563-618 PF00791C 20.98 8.052e-10 544- 583 PF00791C 20.98 3.382e-09 229-268 PF00791B 28.49 7.275e- 09 371-426 PF00791C 20.98 9.912e-09 385-424

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NO:	entry ID		
1505	BL00479	Phorbol esters / diacylglycerol binding domain proteins.	BL00479B 12.57 8.714e-09 143- 159
1506	BL00479	Phorbol esters / diacylglycerol binding domain proteins.	BL00479B 12.57 8.714e-09 167- 183
1507	BL00518	Zinc finger, C3HC4 type (RING finger), proteins.	BL00518 12.23 5.286e-10 239- 248
1507	BL01282	BIR repeat proteins.	BL01282B 30.49 1.900e-09 220- 259
1507	BL00264	Neurohypophysial hormones proteins.	BL00264 8.98 4.884e-09 341-368
1510	BL00122	Carboxylesterases type-B serine proteins.	BL00122G 11.67 2.500e-15 15-26
1511	PR00910	LUTEOVIRUS ORF6 PROTEIN SIGNATURE	PR00910A 2.51 1.986e-11 340- 353 PR00910A 2.51 1.986e-11 342-355 PR00910A 2.51 1.986e- 11 344-357 PR00910A 2.51 9.778e-10 346-359 PR00910A 2.51 1.107e-09 338-351 PR00910A 2.51 3.464e-09 336- 349
1511	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 4.508e-09 324- 357
1512	DM01970	0 kw ZK632.12 YDR313C ENDOSOMAL III.	DM01970B 8.60 8.475e-15 175- 188
1514	PR00833	POLLEN ALLERGEN POA PI SIGNATURE	PR00833H 2.30 8.375e-10 149- 164 PR00833H 2.30 2.846e-09 147-162
1514	PR00308	TYPE I ANTIFREÈZE PROTEIN SIGNATURE	PR00308A 5.90 9.630e-11 150- 165 PR00308C 3.83 8.892e-10 104-114 PR00308C 3.83 8.892e- 10 105-115 PR00308C 3.83 8.892e-10 151-161 PR00308C 3.83 8.892e-10 152-162 PR00308C 3.83 8.892e-10 153- 163 PR00308C 3.83 8.892e-10 154-164 PR00308C 3.83 7.545e- 09 103-113 PR00308C 3.83 7.896e-09 150-160 PR00308B 4.28 8.397e-09 150-162 PR00308A 5.90 9.047e-09 101- 116
1514	PR00456	RIBOSOMAL PROTEIN P2 SIGNATURE	PR00456E 3.06 7.188e-10 144- 159 PR00456E 3.06 1.684e-09 145-160 PR00456E 3.06 7.949e- 09 97-112 PR00456E 3.06 9.430e-09 98-113
1515	PF00992	Troponin.	PF00992A 16.67 3.368e-09 448- 483
1521	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019A 11.19 7.333e-09 322- 336 PR00019B 11.36 9.280e-09 319-333
1522	BL00315	Dehydrins proteins.	BL00315A 9.35 7.197e-10 93-121
1524	PD00930	PROTEIN GTPASE DOMAIN ACTIVATION.	PD00930B 33.72 4.240e-16 235- 276
1524	PR00234	HIV-I MATRIX PROTEIN SIGNATURE	PR00234E 11.78 7.268e-09 361- 375
1525	BL00183	Ubiquitin-conjugating enzymes proteins.	BL00183 28.97 8.338e-14 44-92
1527	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019B 11.36 6.850e-10 132- 146 PR00019A 11.19 2.667e-09 135-149 PR00019B 11.36 9.640e-
		294	1 1100 7.0400

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			09 180-194 PR00019B 11.36 1.000e-08 277-291
1529	BL00625	Regulator of chromosome condensation (RCC1) proteins.	BL00625A 16.21 2.033e-16 567- 596 BL00625B 17.69 4.205e-12 561-595 BL00625B 17.69 9.423e- 11 93-127 BL00625B 17.69 1.444e-10 152-186 BL00625A 16.21 1.759e-10 99-128 BL00625A 16.21 2.739e-09 515- 544 BL00625B 17.69 3.172e-09 43-77 BL00625A 16.21 4.170e- 09 158-187
1529	PR00633	CHROMOSOME CONDENSATION REGULATOR RCC1 SIGNATURE	PR00633B 13.02 3.535e-09 561- 575 PR00633A 9.32 6.260e-09 527-544 PR00633F 10.03 7.949e- 09 528-543
1530	BL00414	Profilin proteins.	BL00414A 13.85 6.344e-13 2-16 BL00414E 15.46 6.283e-09 121- 136
1530	PR00392	PROFILIN SIGNATURE	PR00392C 18.98 2.350e-12 41-62 PR00392A 14.10 4.176e-12 4-14 PR00392D 12.00 5.250e-11 63-78 PR00392F 17.40 7.955e-11 122- 140 PR00392E 12.06 6.500e-09 109-123
1531	BL00414	Profilin proteins.	BL00414A 13.85 6.344e-13 2-16 BL00414E 15.46 6.283e-09 105- 120
1531	PR00392	PROFILIN SIGNATURE	PR00392C 18.98 2.350e-12 41-62 PR00392A 14.10 4.176e-12 4-14 PR00392D 12.00 5.250e-11 63-78 PR00392F 17.40 7.955e-11 106- 124 PR00392E 12.06 8.833e-09 93-107
1532	PD00301	PROTEIN REPEAT MUSCLE CALCIUM- BI.	PD00301A 10.24 8.200e-09 131- 142
1533	DM01930	2 kw FINGER SMCX SMCY YDR096W.	DM01930F 14.16 1.310e-27 24-60
1534	BL00411	Kinesin motor domain proteins.	BL00411G 21.39 2.200e-39 77- 119 BL00411H 15.66 8.800e-33 125-156 BL00411F 14.77 6.250e- 18 33-58
1534	PR00380	KINESIN HEAVY CHAIN SIGNATURE	PR00380D 9.93 7.923e-26 126- 148 PR00380C 13.18 1.000e-21 76-95 PR00380B 12.64 1.621e-16 42-60
1534	BL00893	mutT domain proteins.	BL00893 18.99 8.826e-09 176- 201
1536	BL00600	Aminotransferases class-III pyridoxal- phosphate attachment si.	BL00600E 16.43 5.725e-15 164- 193 BL00600G 12.43 7.000e-14 242-261 BL00600F 8.77 7.480e- 11 207-220 BL00600D 8.71 1.750e-10 143-157
1537	BL00838	Interleukins -4 and -13 proteins.	BL00838A 12.35 8.696e-09 136- 155
1537	PD01847	PHOTOSYSTEM II PROTEIN REACTION CENTRE I TRANSM.	PD01847 9.59 8.946e-09 137-173
1539	PR00121	SODIUM/POTASSIUM-TRANSPORTING ATPASE SIGNATURE	PR00121D 16.72 3.012e-12 261- 283

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1539	BL00154	E1-E2 ATPases phosphorylation site proteins.	BL00154E 20.37 8.468e-16 532- 573 BL00154C 12.38 3.520e-12 264-283
1539	BL01228	Hypothetical cof family proteins.	BL01228D 17.44 6.400e-11 660- 685
1539	PR00119	P-TYPE CATION-TRANSPORTING ATPASE SUPERFAMILY SIGNATURE	PR00119B 13.94 3.333e-11 268- 283 PR00119D 9.56 6.063e-10 548-559
1540	BL00289	Pentaxin family proteins.	BL00289A 30.36 9.031e-09 331- 362
1542	BL01279	Protein-L-isoaspartate(D-aspartate) O- methyltransferase signa.	BL01279A 24.27 1.000e-11 67- 115
1542	BL00422	Granins proteins.	BL00422C 16.18 7.176e-09 303- 331
1545	BL00027	'Homeobox' domain proteins.	BL00027 26.43 4.462e-32 244- 287
1545	PR00025	HOMEOTIC ANTENNAPEDIA PROTEIN SIGNATURE	PR00025B 11.94 3.143e-12 230- 246
1545	PR00024	HOMEOBOX SIGNATURE	PR00024C 7.49 3.500e-12 276- 286 PR00024A 11.87 7.000e-12 251-263 PR00024B 11.27 1.409e- 10 266-277
1545	PR00031	LAMBDA AND OTHER REPRESSOR HELIX-TURN-HELIX SIGNATURE	PR00031B 16.29 4.414e-10 267- 284
1545	BL00032	'Homeobox' antennapedia-type protein.	BL00032B 10.83 1.675e-37 233- 272 BL00032C 11.28 4.429e-21 272-290 BL00032A 18.38 5.750e-10 193-216
1546	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 6.400e-16 245- 258 PD00066 13.92 8.615e-15 329-342 PD00066 13.92 6.000e- 13 301-314 PD00066 13.92 4.857e-12 217-230 PD00066 13.92 1.346e-10 273-286 PD00066 13.92 8.200e-09 357- 370
1546	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 5.950e-13 313- 330 BL00028 16.07 7.261e-12 229-246 BL00028 16.07 3.077e- 11 16-33 BL00028 16.07 3.769e- 11 285-302 BL00028 16.07 9.308e-11 341-358 BL00028 16.07 3.100e-10 397-414 BL00028 16.07 5.800e-10 201- 218 BL00028 16.07 6.400e-10 369-386 BL00028 16.07 7.600e- 10 257-274 BL00028 16.07 8.800e-10 72-89 BL00028 16.07 9.229e-09 101-118
1546	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 3.118e-12 310- 324 PR00048B 6.02 5.000e-12 326-336 PR00048A 10.52 6.294e- 12 13-27 PR00048B 6.02 1.692e- 11 242-252 PR00048A 10.52 3.842e-11 338-352 PR00048A 10.52 5.263e-11 366-380 PR00048A 10.52 8.579e-11 226- 240 PR00048A 10.52 8.579e-11

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			254-268 PR00048A 10.52 3.348e- 10 394-408 PR00048A 10.52 4.913e-10 282-296 PR00048B 6.02 7.188e-10 298-308 PR00048B 6.02 9.053e-09 57-67 PR00048A 10.52 9.640e-09 98- 112
1547	BL00585	Ribosomal protein S5 proteins.	BL00585B 18.78 6.143e-18 303- 340 BL00585A 28.43 4.286e-16 220-272
1548	PR00482	OMPTIN SERINE PROTEASE SIGNATURE	PR00482C 11.02 7.968e-09 816- 842
1549	PR00500	POLYCYSTIC KIDNEY DISEASE PROTEIN SIGNATURE	PR00500B 7.74 7.359e-10 56-77
1551	PR00917	SMALL ROUND STRUCTURED VIRUS (C37) CYSTEINE PROTEASE FAMILY SIGNATURE	PR00917G 10.59 8.990e-09 812- 830
1553	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 9.486e-09 109- 126
1555	PF00638	RanBP1 domain proteins.	PF00638 11.91 4.600e-18 67-82
1555	DM01269	303 kw ACTIVATING RAN GTPASE ISOZYME.	DM01269A 23.35 1.600c-20 68- 96 DM01269B 11.71 3.323e-09 138-148
1556	BL00406	Actins proteins.	BL00406E 8.44 8.541e-28 323- 373 BL00406B 5.47 1.375e-27 82-137 BL00406D 12.58 3.160e- 26 266-321 BL00406C 6.75 6.943e-25 141-196 BL00406A 9.95 2.575e-20 7-42
1556	PR00190	ACTIN SIGNATURE	PR00190F 7.80 3.647e-13 139- 159 PR00190C 11.49 2.029e-12 60-83 PR00190G 12.62 2.050e-09 233-250
1558	BL00048	Protamine P1 proteins.	BL00048 6.39 3.700e-09 153-180
1558	DM01206	CORONAVIRUS NUCLEOCAPSID PROTEIN.	DM01206B 10.69 9.328e-11 157- 177 DM01206B 10.69 1.247e-10 236-256 DM01206B 10.69 7.781e-10 188-208 DM01206B 10.69 6.582e-09 234-254
1559	PR00315	GTP-BINDING ELONGATION FACTOR SIGNATURE	PR00315A 11.81 5.688e-10 126- 140
1559.	PR00326	GTP1/OBG GTP-BINDING PROTEIN FAMILY SIGNATURE	PR00326A 8.75 1.000e-09 127- 148
1559	PR00449	TRANSFORMING PROTEIN P21 RAS SIGNATURE	PR00449A 13.20 6.431e-09 125- 147
1559	PR00755	AFLATOXIN BIOSYNTHESIS REGULATORY PROTEIN SIGNATURE	PR00755F 10.99 9.722e-09 30-52
1563	PF00780	Domain found in NIK1-like kinases, mouse citron and yeast ROM.	PF00780B 23.03 9.908e-09 14-57
1567	BL00162	Eukaryotic-type carbonic anhydrases proteins.	BL00162C 17.78 1.000e-40 88- 125 BL00162E 14.93 7.231e-39 171-204 BL00162F 22.68 5.050e- 31 208-242 BL00162A 22.92 8.714e-30 16-47 BL00162D 15.06 7.158e-24 126-151 BL00162B 21.43 1.375e-19 51-74
1568	PR00457	ANIMAL HAEM PEROXIDASE SIGNATURE	PR00457E 20.67 1.621e-24 414- 441 PR00457D 16.81 8.258e-21

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			389-410 PR00457B 13.29 3.455e- 18 223-239 PR00457G 17.45 7.000e-18 595-616 PR00457C 19.25 4.414e-16 371-390 PR00457H 15.90 8.650e-14 666- 681 PR00457A 15.80 5.645e-12 169-181 PR00457F 13.69 8.875e- 11 467-478
1569	BL01304	ubiH/COQ6 monooxygenase family proteins.	BL01304A 8.05 3.571e-11 50-64
1569	PR00368	FAD-DEPENDENT PYRIDINE NUCLEOTIDE REDUCTASE SIGNATURE	PR00368A 17.76 3.769e-10 50-73
1569	PR00757	FLAVIN-CONTAINING AMINE OXIDASE SIGNATURE	PR00757A 6.64 5.552e-10 50-70
1569	BL00623	GMC oxidoreductases proteins.	BL00623A 12.60 2.929e-09 50-69
1569	PR00420	AROMATIC-RING HYDROXYLASE (FLAVOPROTEIN MONOOXYGENASE) SIGNATURE	PR00420A 14.78 6.455e-09 50-73
1569	BL00064	L-lactate dehydrogenase proteins.	BL00064A 21.16 7.203e-09 50-88
1569	PR00370	FLAVIN-CONTAINING MONOOXYGENASE (FMO) SIGNATURE	PR00370A 3.35 9.772e-09 50-66
1571	BL00019	Actinin-type actin-binding domain proteins.	BL00019D 15.33 3.880e-17 145- 175
1573	BL00893	mutT domain proteins.	BL00893 18.99 5.500e-16 127- 152
1573	PR00502	MUTT DOMAIN SIGNATURE	PR00502B 15.92 4.600e-13 138- 154 PR00502A 15.06 2.636e-09 124-139
1574	PF00632	HECT-domain (ubiquitin-transferase).	PF00632B 18.45 7.000e-16 488- 516 PF00632C 20.66 7.851e-14 533-565
1576	PR00239	MOLLUSCAN RHODOPSIN C- TERMINAL TAIL SIGNATURE	PR00239E 1.58 9.566e-10 292- 304
1576	BL00115	Eukaryotic RNA polymerase II heptapeptide repeat proteins.	BL00115Z 3.12 5.632e-09 243- 292
1576	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 6.118e-11 296- 329 DM00215 19.43 9.647e-11 327-360 DM00215 19.43 8.232e- 10 322-355 DM00215 19.43 2.068e-09 291-324 DM00215 19.43 2.983e-09 265-298 DM00215 19.43 4.356e-09 292- 325 DM00215 19.43 7.712e-09 275-308 DM00215 19.43 8.017e- 09 266-299 DM00215 19.43 8.475e-09 271-304 DM00215 19.43 8.780e-09 286-319
1582	BL01280	Glucose inhibited division protein A family proteins.	BL01280A 15.97 6.727e-36 69- 110 BL01280B 23.56 8.105e-27 128-180
1582	BL00076	Pyridine nucleotide-disulphide oxidoreductases class-I.	BL00076A 18.83 6.745e-12 68-98
1582	BL00836	Alanine dehydrogenase & pyridine nucleotide transhydrogenase.	BL00836D 22.30 9.576e-12 69- 106
1582	BL00504	Fumarate reductase / succinate dehydrogenase FAD-binding site proteins.	BL00504A 10.76 3.870e-11 69-91
1582	BL00977	FAD-dependent glycerol-3-phosphate dehydrogenase proteins.	BL00977A 20.76 8.5836-11 69- 121

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1582	PR00411	PYRIDINE NUCLEOTIDE DISULPHIDE REDUCTASE CLASS-I SIGNATURE	PR00411A 15.95 1.000e-10 69-92
1582	BL00982	Bacterial-type phytoene dehydrogenase proteins.	BL00982A 18.41 2.151e-10 71- 103
1582	PR00368	FAD-DEPENDENT PYRIDINE NUCLEOTIDE REDUCTASE SIGNATURE	PR00368A 17.76 8.846e-13 69-92 PR00368C 15.74 5.263e-10 69-95
1582	PR00419	ADRENODOXIN REDUCTASE FAMILY SIGNATURE	PR00419A 14.89 3.571e-09 69-92
1582	PR00757	FLAVIN-CONTAINING AMINE OXIDASE SIGNATURE	PR00757A 6.64 6.226e-09 69-89
1582	PR00469	PYRIDINE NUCLEOTIDE DISULPHIDE REDUCTASE CLASS-II SIGNATURE	PR00469A 15.46 1.851e-10 69-92 PR00469F 16.51 8.063e-09 65-90
1582	BL00623	GMC oxidoreductases proteins.	BL00623A 12.60 8.586e-09 69-88
1586	PR00413	HALOACID DEHALOGENASE/EPOXIDE HYDROLASE FAMILY SIGNATURE	PR00413E 15.78 6.714e-09 70-87
1587	PD01861	PROTEIN NÚCLEÁR RIBONUCLEOPROTEIN SMALL MRNA RNA.	PD01861A 14.06 6.318e-10 60-84
1588	PD00289	PROTEIN SH3 DOMAIN REPEAT PRESYNA.	PD00289 9.97 6.586e-09 46-60
1588	PF00595	PDZ domain proteins (Also known as DHR or GLGF).	PF00595 13.40 9.400e-09 43-54
1591	BL00914	Syntaxin / epimorphin family proteins.	BL00914 24.91 1.250e-29 184- 234
1592	PR00010	TYPE II EGF-LIKE SIGNATURE	PR00010C 11.16 6.667e-11 363- 374
1592	BL01187	Calcium-binding EGF-like domain proteins pattern proteins.	BL01187B 12.04 6.538e-16 358- 374 BL01187A 9.98 3.250e-09 278-290
1592	BL00022	EGF-like domain proteins.	BL00022B 7.54 8.200e-09 367- 374
1593	PR00625	DNAJ PROTEIN FAMILY SIGNATURE	PR00625A 12.84 4.600e-20 14-34 PR00625B 13.48 8.759e-20 46-67
1593	BL00636	Nt-dnaJ domain proteins.	BL00636A 8.07 4.176e-18 18-35 BL00636B 15.11 1.000e-15 46-67
1594	PD02448	TRANSCRIPTION PROTEIN DNA- BINDIN.	PD02448A 9.37 3.854e-09 351- 390
1598	PD02448	TRANSCRIPTION PROTEIN DNA- BINDIN.	PD02448A 9.37 1.511e-20 50-89 PD02448B 10.17 8.071e-19 89- 137
1602	PR00403	WW DOMAIN SIGNATURE	PR00403B 12.19 9.816e-11 144- 159 PR00403B 12.19 8.167e-10 103-118
1602	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 6.644e-09 23-56
1602	BL01159	WW/rsp5/WWP domain proteins.	BL01159 13.85 5.224e-10 144- 159 BL01159 13.85 6.891e-09 103-118
1602	PR00571	ENDOTHELIN-B RECEPTOR SIGNATURE	PR00571G 5.36 7.750e-09 107- 126
1603	PR00403	WW DOMAIN SIGNATURE	PR00403B 12.19 9.816e-11 107- 122
1603	BL01159	WW/rsp5/WWP domain proteins.	BL01159 13.85 5.224e-10 107- 122
1603	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 6.644e-09 23-56
1605	PR00929	AT-HOOK-LIKE DOMAIN SIGNATURE	PR00929B 4.38 4.600e-10 358- 370
1605	DM00303	6 LEA 11-MER REPEAT REPEAT.	DM00303A 13.20 7.708e-10 306-

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			356 DM00303A 13.20 2.912e-09 304-354 DM00303A 13.20 7.212e-09 300-350 DM00303A 13.20 7.212e-09 311-361
1605	BL00354	HMG-I and HMG-Y DNA-binding domain proteins (Ahook).	BL00354B 3.16 7.722e-09 357- 370
1606	PD02379	AMINOTRANSFERASE BIOSYNTHESIS PHOSPHOSERINE SER.	PD02379E 11.43 1.000e-40 194- 236 PD02379F 18.62 6.029e-35 245-284 PD02379H 16.03 5.235e-33 352-385 PD02379B 12.05 3.613e-31 80-113 PD02379A 15.57 2.800e-25 29-60 PD02379C 13.34 3.700e-21 119- 139 PD02379D 11.83 9.419e-16 168-181 PD02379G 10.62 2.537e-14 313-328
1606	PR00800	AROMATIC-L-AMINO-ACID DECARBOXYLASE SIGNATURE	PR00800G 11.29 1.889e-09 97- 118
	PD02379	AMINOTRANSFERASE BIOSYNTHESIS PHOSPHOSERINE SER.	PD02379E 11.43 1.000e-40 194- 236 PD02379F 18.62 6.029e-35 245-284 PD02379B 12.05 3.613e- 31 80-113 PD02379A 15.57 2.800e-25 29-60 PD02379H 16.03 7.864e-23 306-339 PD02379C 13.34 3.700e-21 119- 139 PD02379D 11.83 9.419e-16
1607	PR00800	AROMATIC-L-AMINO-ACID DECARBOXYLASE SIGNATURE	PR00800G 11.29 1.889e-09 97- 118
1610	PR00874	FUNGI-IV METALLOTHIONEIN SIGNATURE	PR00874C 4.37 6.625e-09 33-48
1614	BL00035	'POU' domain proteins.	BL00035B 14.46 6.236e-09 683- 704
1616	PF00168	C2 domain proteins.	PF00168C 27.49 8.412e-13 634- 660
1616	PR00360	C2 DOMAIN SIGNATURE	PR00360B 13.61 8.105e-10 651- 665
1617	PF00168	C2 domain proteins.	PF00168C 27.49 8.412e-13 115-
1617	PR00360	C2 DOMAIN SIGNATURE	PR00360B 13.61 8.105e-10 132- 146
1619	PR00566	DOPAMINE 1B RECEPTOR SIGNATURE	PR00566E 13.44 5.255e-18 466- 483 PR00566A 9.32 3.000e-17 200-214 PR00566D 9.35 1.600e- 12 446-455 PR00566C 11.44 2.184e-12 401-412 PR00566B 8.20 3.053e-11 341-351
1619	PR00242	DOPAMINE RECEPTOR SIGNATURE	PR00242E 13.29 1.000e-12 424- 439 PR00242B 11.77 8.650e-11 257-267
1619	BL00237	G-protein coupled receptors proteins.	BL00237C 13.19 6.786e-20 364- 391 BL00237A 27.68 9.710e-15 266-306 BL00237B 5.28 5.263e- 10 309-321
1619	PR00237	RHODOPSIN-LIKE GPCR SUPERFAMILY SIGNATURE	PR00237F 13.57 5.800e-19 369- 394 PR00237B 13.50 6.250e-19 236-258 PR00237E 13.03 9.500e- 15 301-325 PR00237C 15.69

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			3.925e-09 280-303 PR00237A 11.48 7.387e-09 202-227
1620	PR00169	POTASSIUM CHANNEL SIGNATURE	PR00169A 16.77 7.851e-11 46-66
1621	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 7.529e-11 183- 216
1621	PF00685	Sulfotransferase proteins.	PF00685C 26.03 5.100e-09 118- 164
1621	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 8.322e-09 198- 213
1622	BL00951	ER lumen protein retaining receptor proteins.	BL00951B 14.23 1.670e-09 43-74
1623	BL00292	Cyclins proteins.	BL00292B 20.31 3.925e-11 120- 151
1624	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 3.160e-09 111- 125
1624	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 3.739e-12 114- 131 BL00028 16.07 3.571e-09 145-162
1625	BL01226	Hydroxymethylglutaryl-coenzyme A synthase proteins.	BL01226I 25.06 8.560e-09 256- 304
1629	BL00030	Eukaryotic RNA-binding region RNP-1 proteins.	BL00030A 14.39 1.563e-12 72-91 BL00030A 14.39 2.125e-12 156- 175
1637	BL00740	MAM domain proteins.	BL00740B 19.76 3.813e-09 637- 658
1637	PR00597	GELSOLIN FAMILY SIGNATURE	PR00597G 8.55 6.586e-27 637-660 PR00597A 12.96 5.846e-26 326-348 PR00597E 13.46 2.000e-22 523-544 PR00597F 16.29 9.526e-22 582-602 PR00597D 12.77 1.000e-20 469-490 PR00597B 9.78 2.500e-20 415-432 PR00597C 14.19 6.192e-20 436-455 PR00597H 15.32 7.577e-19 666-686 PR00597D 12.77 3.392e-10 94-115 PR00597B 9.78 9.455e-10 36-53 PR00597C 14.19 7.875e-09 61-80 PR00597A 12.96 8.027e-09 689-711
1641	BL00027	'Homeobox' domain proteins.	BL00027 26.43 7.000e-11 93-136
1641	PR00887	STRUCTURE-SPECIFIC RECOGNITION PROTEIN SIGNATURE	PR00887D 15.12 8.909e-09 337- 351
1646	PR00259	TRANSMEMBRANE FOUR FAMILY SIGNATURE	PR00259A 9.27 3.308e-18 19-43 PR00259C 16.40 9.800e-18 88- 117 PR00259D 13.50 2.756e-15 238-265
1646	BL00421	Transmembrane 4 family proteins.	BL00421A 11.79 5.263e-14 15-34 BL00421E 20.97 4.632e-13 235- 265
1651	PR00669	INHIBIN ALPHA CHAIN SIGNATURE	PR00669F 5.57 9.899e-09 223- 241
1652	DM01292	ESICULAR LUMEN DOMAIN.	DM01292L 12.54 9.505e-09 240- 265
1653	PR00128	COLIPASE SIGNATURE	PR00128D 9.77 6.250e-25 47-66 PR00128C 9.28 5.299e-20 24-47
1653	BL00121	Colipase proteins.	BL00121B 9.96 3.160e-33 15-64 BL00121A 14.56 2.107e-09 16-56
1656	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 9.929e-10 384-

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			399
1658	BL01118	Translation initiation factor SUII proteins,	BL01118B 26.75 8.579e-26 94- 132 BL01118A 12.46 4.000e-13 77-92
1659	BL00811	Oleosins proteins.	BL00811A 8.26 3.310e-09 120- 158
1660	BL00674	AAA-protein family proteins.	BL00674B 4.46 9.182e-11 184- 206
1660	PR00830	ENDOPEPTIDASE LA (LON) SERINE PROTEASE (S16) SIGNATURE	PR00830A 8.41 8.544e-10 191- 211
1660	PR00300	ATP-DEPENDENT CLP PROTEASE ATP- BINDING SUBUNIT SIGNATURE	PR00300A 9.56 9.416e-09 187- 206
1660	PR00051	BACTERIAL CHROMOSOMAL REPLICATION INITIATOR (DNAA) SIGNATURE	PR00051A 10.68 9.899e-09 184- 205
1661	DM01871	kw SSR LIGASE CYCLO FORMYLTETRAHYDROFOLATE.	DM01871C 20.79 9.836e-10 270- 296
1663	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 7.712e-09 95-110
1665	BL01181	Ribosomal protein S21 proteins.	BL01181 15.43 2.500e-10 13-49
1666	PR00259	TRANSMEMBRANE FOUR FAMILY SIGNATURE	PR00259C 16.40 6.824e-16 88- 117 PR00259A 9.27 3.423e-14 24-48 PR00259D 13.50 1.574e-13 238-265 PR00259B 14.81 8.714e- 13 61-88
1666	BL00421	Transmembrane 4 family proteins.	BL00421B 17.62 4.600e-19 67- 106 BL00421E 20.97 6.211e-13 235-265 BL00421A 11.79 5.600e-12 20-39
1668	PR00496	NAPIN SIGNATURE	PR00496A 6.68 6.276e-09 21-43
1671	PR00237	RHODOPSIN-LIKE GPCR SUPERFAMILY SIGNATURE	PR00237G 19.63 2.543e-11 670- 697 PR00237A 11.48 3.000e-10 424-449
1671	PR00373	GLYCOPROTEIN HORMONE RECEPTOR SIGNATURE	PR00373D 11.16 2.403e-09 503- 518
1671	BL00237	G-protein coupled receptors proteins.	BL00237A 27.68 6.600e-10 496- 536 BL00237D 11.23 4.545e-09 680-697
1671	PR00910	LUTEOVIRUS ORF6 PROTEIN SIGNATURE	PR00910A 2.51 7.429e-09 400- 413
1671	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019B 11.36 6.000e-11 94- 108 PR00019A 11.19 7.300e-11 215-229 PR00019B 11.36 6.850e- 10 46-60 PR00019A 11.19 8.043e-10 285-299 PR00019B 11.36 5.320e-09 212-226 PR00019B 11.36 9.640e-09 70-84
1672	BL00972	Ubiquitin carboxyl-terminal hydrolases family 2 proteins.	BL00972A 11.93 7.500e-20 36-54 BL00972D 22.55 6.806e-16 296- 321 BL00972B 9.45 1.000e-13 116-126 BL00972E 20.72 8.773e- 12 321-343
1673	PF00646	F-box domain proteins.	PF00646A 14.37 6.906e-09 92- 106
1675	BL00933	FGGY family of carbohydrate kinases proteins.	BL00933D 24.01 7.545e-15 212- 249 BL00933B 15.94 2.200e-09 54-65 BL00933E 13.80 3.543e-09 439-455 BL00933A 17.50

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			4.857e-09 20-44
1676	PR00876	NEMATODE METALLOTHIONEIN SIGNATURE	PR00876B 7.66 1.887e-10 137- 151
1676	BL00026	Chitin recognition or binding domain proteins.	BL00026 12.95 2.776e-09 55-76
1676	BL01208	VWFC domain proteins.	BL01208B 15.83 2.946e-09 172- 187
1676	BL01282	BIR repeat proteins.	BL01282B 30.49 4.471e-09 130- 169
1676	PR00875	MOLLUSC METALLOTHIONEIN SIGNATURE	PR00875B 5.24 4.649e-09 137- 145
1676	BL00956	Fungal hydrophobins proteins.	BL00956B 8.29 4.682e-09 153- 165
1676	PD00866	GLYCOPROTEIN PROTEIN SPIKE E2 PRECURSOR PEPLOMER.	PD00866L 3.73 6.564e-10 1-11 PD00866L 3.73 1.443e-09 33-43 PD00866L 3.73 2.918e-09 12-22 PD00866L 3.73 2.918e-09 19-29 PD00866L 3.73 4.836e-09 149-
1676	PD02283	PROTEIN SPORULATION REPEAT PRECU.	PD02283C 17.54 6.288e-09 141- 169
1676	DM01724	kw ALLERGEN POLLEN CIM1 HOL-LI.	DM01724 8.14 7.465e-10 17-37 DM01724 8.14 4.434e-09 19-39 DM01724 8.14 6.684e-09 10-30
1676	PR00858	CRUSTACEAN METALLOTHIONEIN SIGNATURE	PR00858B 5.93 5.883e-09 155- 174 PR00858B 5.93 8.085e-09 136-155
1676	PR00874	FUNGI-IV METALLOTHIONEIN SIGNATURE	PR00874C 4.37 9.739e-10 125- 140 PR00874C 4.37 9.000e-09 135-150
1676	BL00243	Integrins beta chain cysteine-rich domain proteins.	BL002431 31.77 3.779c-10 38-81 BL002431 31.77 4.309c-10 68-111 BL002431 31.77 5.235c-10 58-101 BL002431 31.77 7.353c-10 98-141 BL002431 31.77 1.000c-09 78-121 BL002431 31.77 1.000c-09 88-131 BL002431 31.77 1.380c-09 121- 164 BL002431 31.77 2.648c-09 119-162 BL002431 31.77 2.662c- 09 61-104 BL002431 31.77 4.296c-09 131-174 BL002431 31.77 4.676c-09 48-91 BL002431 31.77 6.704c-09 109-152 BL002431 31.77 7.845c-09 25-68 BL00243I 31.77 9.366c-09 134-
1676	BL00203	Vertebrate metallothioneins proteins.	BL00203 13.94 3.885c-16 128- 174 BL00203 13.94 8.607c-13 123-169 BL00203 13.94 2.780c- 11 153-199 BL00203 13.94 3.571c-11 148-194 BL00203 13.94 4.363c-11 113-159 BL00203 13.94 5.451c-11 139- 185 BL00203 13.94 6.934c-11 144-190 BL00203 13.94 9.209c- 11 131-177 BL00203 13.94 2.436c-10 35-81 BL00203 13.94 4.255c-10 133-179 BL00203

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			13.94 6.745e-10 32-78 BL00203 13.94 7.032e-10 154-200 BL00203 13.94 2.929e-09 34-80 BL00203 13.94 3.388e-09 149- 195 BL00203 13.94 3.571e-09 136-182 BL00203 13.94 5.224e- 09 127-173 BL00203 13.94 5.776e-08 43-89 BL00203 13.94 6.878e-09 140-186 BL00203 13.94 7.796e-09 45-91 BL00203 13.94 9.541e-09 42-88
1679	PD01976	KINASE DEHYDROGENASE TRANSFERASE.	PD01976A 8.95 1.493e-09 83-96
1680	BL00623	GMC oxidoreductases proteins.	BL00623A 12.60 9.859e-10 12-31
1680	PR00419	ADRENODOXIN REDUCTASE FAMILY SIGNATURE	PR00419A 14.89 4.729e-09 12-35
1680	PR00368	FAD-DEPENDENT PYRIDINE NUCLEOTIDE REDUCTASE SIGNATURE	PR00368A 17.76 9.357e-09 12-35
1683	BL01172	Ribosomal protein L44e proteins.	BL01172B 14.10 8.909e-38 15-57 BL01172C 16.78 7.188e-31 63- 102
1685	DM01724	kw ALLERGEN POLLEN CIMI HOL-LI.	DM01724 8.14 5.909e-11 11-31 DM01724 8.14 6.591e-11 41-61 DM01724 8.14 6.831e-10 39-59 DM01724 8.14 8.697e-09 55-75
1686	PR00320	G-PROTEIN BETA WD-40 REPEAT SIGNATURE	PR00320A 16.74 8.463e-09 73-88
1690	PD02269	CYTIDINE DEAMINASE HYDROLASE ZINC AMINOHY.	PD02269C 16.36 7.882e-17 79-92 PD02269A 10.06 1.000e-15 29-41 PD02269D 11.98 5.000e-14 110- 125
1691	BL00790	Receptor tyrosine kinase class V proteins.	BL00790D 12.41 8.297e-09 429- 454
1692	BL00750	Chaperonins TCP-1 proteins.	BL00750B 16.17 2.000e-39 69- 119 BL00750A 20.07 8.286e-36 25-68 BL00750C 25.65 8.579e-23 152-184
1692	PR00304	TAILLESS COMPLEX POLYPEPTIDE I (CHAPERONE) SIGNATURE	PR00304C 8.69 1.250e-18 86-106 PR00304B 11.60 2.059e-17 56-75 PR00304A 9.20 3.605e-15 34-51
1692	PR00298	60 KD CHAPERONIN SIGNATURE	PR00298B 13.59 7.353e-11 88- 116
1692	BL00296	Chaperonins cpn60 proteins.	BL00296B 15.98 4.115e-13 76- 130 BL00296A 17.20 5.648e-10 12-66
1694	BL00415	Synapsins proteins.	BL00415N 4.29 4.710e-10 225- 269
1694	PD01234	PROTEIN NUCLEAR BROMODOMAIN TRANS.	PD01234B 15.53 5.875e-10 243- 261
1694	BL00795	Involucrin proteins.	BL00795C 17.06 7.698e-10 213- 258
1694	PR00208	GLIADIN AND LMW GLUTENIN SUPERFAMILY SIGNATURE	PR00208A 12.59 9.384e-09 247- 265
1694	DM00406	GLIADIN.	DM00406 7.73 9.800e-09 245-258
1696	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 1.000e-09 212- 229 BL00028 16.07 6.143e-09 365-382

1700 BL.00030 Eukaryotic RNA-binding region RNP-1 proteins. BL.00030A 14.39 6.143e-13 332-1700 PD02784 PROTEIN NUCLEAR RIBONUCLEOPROTEIN. Ank repeat proteins. PF00023A 16.03 8.500e-10 283-299 PF00023A 16.03 8.500e-10 283-299 PF00023A 16.03 9.625e-10 347-363 PF00023A 16.03 9.625e-10 1642-00 170023A 16.03 9.625e-10 1643e-09 150-166 BL.00906 Uroporphyrinogen decarboxylase proteins. BL.00906D 24.33 7.750e-09 212-256 Domain present in ZO-1 and Unc5-like netrin receptors. PF00791B 28.49 8.139e-14 117-172 PF00791B 28.49 8.139e-14 117-172 PF00791B 28.49 8.139e-15 117-172 PF00791B 28.49 8.139e-16 117-172 PF00791B 28.49 8.139e-16 117-172 PF00791B 28.49 8.139e-17-172 PF00791B 28.49 8.139e-17-17-172 PF00791B 28.49 8.139e-17-17-17-172 PF00791B 28.49 8.139e-17-17-17-17-17-17-17-17-17-17-17-17-17-	SEQ ID NO:	Database entry ID	Description	Results*
RIBONUCLEOPROTEIN.	1700	BL00030	proteins.	351
BL00906		PD02784	RIBONUCLEOPROTEIN.	
1701 PF00791 Domain present in ZO-1 and Unc5-like netrin PF00791B 28.49 8.159e-14 117-	1701	PF00023		299 PF00023A 16.03 9.625e-10 347-363 PF00023A 16.03 1.321e- 09 184-200 PF00023A 16.03 1.643e-09 150-166
receptors. 172 PF00791B 28.49 8.319e-13 217-272 PF00791B 28.49 3.179e-13 217-272 PF00791B 28.49 3.179e-13 218-4239 PF00791B 28.49 5.168e-12 347-402 PF00791B 28.49 5.168e-12 347-402 PF00791B 28.49 8.514e-09 B2.849 5.278e-11 250-305 PF00791B 28.49 8.514e-09 B4-139 PF00791C 20.98 1.000e-08 98-137 PF00791C 20.98 1.000e-08 98-137 PF00791C 20.98 1.000e-08 28-137 PF00791C 20.98 1.000e-08 28-137 PF00791C 20.98 1.000e-08 28-137 PF00992A 16.67 9.526e-09 749-784 PF0092A 16.67 9.526e-09 749-749 PF0092A 16.67 9.52	1701	BL00906	Uroporphyrinogen decarboxylase proteins.	BL00906D 24.33 7.750e-09 212-
1702 PF00992 Troponin. PF00992A 16.67 9.526e-09 749-784 1708 PR00671 INHIBIN BETA B CHAIN SIGNATURE PR00671C 4.18 8.966e-09 212-232 1709 PR00678 PI3 KINASE P85 REGULATORY PR00678H 9.13 7.805e-12 292-315 1710 PR00412 EPOXIDE HYDROLASE SIGNATURE PR00412C 11.30 2.421e-12 169-183 PR00412A 13.23 7.947e-12 104-123 PR00412B 12.59 7.429e-10 123-139 1711 PR00217 43 KD POSTSYNAPTIC PROTEIN PR00217C 10.91 7.247e-10 293-309 1712 PR00320 G-PROTEIN BETA WD-40 REPEAT PR00320A 16.74 9.182e-09 277-3292 PR00320A 16.74 9.780e-09 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.	1701	PF00791		172 PF00791B 28.49 8.319e-13 217-272 PF00791B 28.49 3.179e- 12 184-239 PF00791B 28.49 5.168e-12 347-402 PF00791B 28.49 5.727e-11 250-305 PF00791B 28.49 2.817e-09 17-72 PF00791B 28.49 8.514e-09 84- 139 PF00791C 20.98 1.000e-08
1708 PR00671 INHIBIN BETA B CHAIN SIGNATURE PR00671C 4.18 8.966e-09 212-232 1709 PR00678 PI3 KINASE P85 REGULATORY PR00678H 9.13 7.805e-12 292-315 1710 PR00412 EPOXIDE HYDROLASE SIGNATURE PR00412C 11.30 2.421e-12 169-183 PR00412A 13.23 7.947e-12 104-123 PR00412B 12.59 7.429e-10 123-139 1711 PR00217 43 KD POSTSYNAPTIC PROTEIN PR00217C 10.91 7.247e-10 293-309 1712 PR00320 G-PROTEIN BETA WD-40 REPEAT PR00320A 16.74 9.122e-09 277-292 PR00320A 16.74 9.182e-09 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 235-248 PR00320C 13.01 1.000e-08 168-186 PR00453	1702	BL00107	Protein kinases ATP-binding region proteins.	1
1709	1702	PF00992	Troponin.	
SUBUNIT SIGNATURE 315 1710 PR00412 EPOXIDE HYDROLASE SIGNATURE PR00412C 11.30 2.421e-12 169-183 PR00412A 13.23 7.947e-12 104-123 PR00412B 12.59 7.429e-101 123-139 10 123-139 10 123-139 1711 PR00217 43 KD POSTSYNAPTIC PROTEIN PR00217C 10.91 7.247e-10 293-309 SIGNATURE PR00320 G-PROTEIN BETA WD-40 REPEAT PR00320A 16.74 9.122e-09 277-SIGNATURE 292 PR00320A 16.74 9.780e-09 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-09 408-455 PR00453	1708	PR00671	INHIBIN BETA B CHAIN SIGNATURE	l ·
183 PR00412A 13.23 7.947e-12 104-123 PR00412B 12.59 7.429e-10 123-139 1711 PR00217 43 KD POSTSYNAPTIC PROTEIN PR00217C 10.91 7.247e-10 293-309 PR00320 G-PROTEIN BETA WD-40 REPEAT PR00320A 16.74 9.122e-09 277-292 PR00320A 16.74 9.122e-09 277-292 PR00320A 16.74 9.780e-09 233-248 PR00320C 13.01 1.000e-08 233-248 P	1709	PR00678		
SIGNATURE 309	1710	PR00412	EPOXIDE HYDROLASE SIGNATURE	183 PR00412A 13.23 7.947e-12 104-123 PR00412B 12.59 7.429e-
SIGNATURE 292 PR00320A 16.74 9.780e-09 233-248 PR00320C 13.01 1.000e-08 233-248 PR00320C 13.01 1.000e-08 233-248 1713	1711	PR00217		
503 1719 BL00039 DEAD-box subfamily ATP-dependent BL00039D 21.67 2.957e-09 434-helicases proteins. 480 480 455 1721 PR00453 VON WILLEBRAND FACTOR TYPE A PR00453A 12.79 2.957e-10 33-51 DOMAIN SIGNATURE PR00527 GASTRIN RECEPTOR SIGNATURE PR00527I 5.36 6.559e-09 419-439 1721 PR00014 FIBRONECTIN TYPE III REPEAT PR00014C 15.44 6.870e-09 381-SIGNATURE PR00477 PHOSPHOGLYCERATE KINASE FAMILY PR00477I 8.53 1.000e-08 168-186 SIGNATURE PR00493 BREAST CANCER TYPE I PR00493G 7.57 3.711e-14 693-SUSCEPTIBILITY PROTEIN SIGNATURE 1726 BL00443 Glutamine amidotransferases class-II BL00443F 16.68 8.714e-09 85-proteins. BL00443F 16.68 8.714e-09 85-proteins. 101	1712	PR00320	SIGNATURE	292 PR00320A 16.74 9.780e-09 233-248 PR00320C 13.01 1.000e-
helicases proteins. 480	1713	BL01230	RNA methyltransferase trmA family proteins.	
1719 DM01537 kw SKI2W SKI2 NUCLEOLAR HELICASE. 455 DM01537B 21.63 7.830e-09 408-455 1721 PR00453 VON WILLEBRAND FACTOR TYPE A DOMAIN SIGNATURE PR00453A 12.79 2.957e-10 33-51 1721 PR00527 GASTRIN RECEPTOR SIGNATURE PR00527I 5.36 6.559e-09 419-439 1721 PR00014 FIBRONECTIN TYPE III REPEAT SIGNATURE PR00014C 15.44 6.870e-09 381-400 1721 PR00477 PHOSPHOGLYCERATE KINASE FAMILY SIGNATURE PR00477I 8.53 1.000e-08 168-186 1725 PR00493 BREAST CANCER TYPE I SUSCEPTIBILITY PROTEIN SIGNATURE PR00493G 7.57 3.711e-14 693-714 1726 BL00443 Glutamine amidotransferases class-II BL00443F 16.68 8.714e-09 85-proteins. BL00443F 16.68 8.714e-09 85-101	1719	BL00039	helicases proteins.	
DOMAIN SIGNATURE	1719	DM01537	kw SKI2W SKI2 NUCLEOLAR HELICASE.	
1721 PR00527 GASTRIN RECEPTOR SIGNATURE PR00527I 5.36 6.559e-09 419-439 1721 PR00014 FIBRONECTIN TYPE III REPEAT PR00014C 15.44 6.870e-09 381-	1721	PR00453	1	PR00453A 12.79 2.957e-10 33-51
PR00014 FIBRONECTIN TYPE III REPEAT PR00014C 15.44 6.870e-09 381- 400	1721	PR00527		PR00527I 5.36 6.559e-09 419-439
1721 PR00477 PHOSPHOGLYCERATE KINASE FAMILY SIGNATURE PR00477I 8.53 1.000e-08 168-186 1725 PR00493 BREAST CANCER TYPE I SUSCEPTIBILITY PROTEIN SIGNATURE PR00493G 7.57 3.711e-14 693-714 1726 BL00443 Glutamine amidotransferases class-II proteins. BL00443F 16.68 8.714e-09 85-101			FIBRONECTIN TYPE III REPEAT	PR00014C 15.44 6.870e-09 381-
1725 PR00493 BREAST CANCER TYPE I SUSCEPTIBILITY PROTEIN SIGNATURE PR00493G 7.57 3.711e-14 693-714 1726 BL00443 Glutamine amidotransferases class-II proteins. BL00443F 16.68 8.714e-09 85-101	1721	PR00477	PHOSPHOGLYCERATE KINASE FAMILY	
1726 BL00443 Glutamine amidotransferases class-II BL00443F 16.68 8.714e-09 85-proteins. BL00443F 16.68 8.714e-09 85-	1725	PR00493	BREAST CANCER TYPE I	
	1726	BL00443	Glutamine amidotransferases class-II	BL00443F 16.68 8.714e-09 85-
	1728	DM01206		DM01206B 10.69 7.288e-10 167-

SEQ ID NO:	Database entry ID	Description	. Results*
	, , , , , , , , , , , , , , , , , , , ,	PROTEIN.	187
1728	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 3.411e-10 331- 364 DM00215 19.43 7.107e-10 336-369 DM00215 19.43 9.679e- 10 335-368 DM00215 19.43 3.136e-09 342-375 DM00215 19.43 5.119e-09 315-348 DM00215 19.43 8.322e-09 326- 359
1728	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 8.627e-09 335- 350
1728	BL00048	Protamine P1 proteins.	BL00048 6.39 5.026e-10 152-179 BL00048 6.39 6.329e-10 173-200 BL00048 6.39 8.224e-10 161-188 BL00048 6.39 3.363e-09 155-182 BL00048 6.39 3.475e-09 163-190 BL00048 6.39 3.925e-09 167-194 BL00048 6.39 4.150e-09 151-178 BL00048 6.39 4.150e-09 159-186 BL00048 6.39 4.825e-09 171-198 BL00048 6.39 5.838e-09 176-203 BL00048 6.39 8.200e-09 177-204 BL00048 6.39 9.550e-09 153-180
1728	PR00211	GLUTELIN SIGNATURE	PR00211B 0.86 1.827e-11 345- 366 PR00211B 0.86 3.571e-11 339-360 PR00211B 0.86 6.917e- 09 325-346 PR00211B 0.86 1.000e-08 351-372
1731	BL01221	PMP-22 / EMP / MP20 family proteins.	BL01221C 26.20 1.281e-34 59- 104 BL01221D 13.99 5.966e-27 136-163 BL01221A 17.26 2.385e-26 1-29 BL01221B 13.29 1.000e-14 38-52
1733	BL00027	'Homeobox' domain proteins.	BL00027 26.43 4.000e-10 297- 340
1733	PR00024	HOMEOBOX SIGNATURE	PR00024A 11.87 4.150e-09 289- 301
1734	BL00027	'Homeobox' domain proteins.	BL00027 26.43 4.000e-10 297- 340
1734	PR00024	HOMEOBOX SIGNATURE	PR00024A 11.87 4.150e-09 289- 301
1738	BL00303	S-100/ICaBP type calcium binding protein.	BL00303B 26.15 5.075e-13 73- 110
1738	BL00018	EF-hand calcium-binding domain proteins.	BL00018 7.41 3.400e-12 85-98 BL00018 7.41 8.043e-09 49-62
1738	PR00450	RECOVERIN FAMILY SIGNATURE	PR00450C 12.22 6.582e-09 44-66 PR00450C 12.22 9.772e-09 80- 102
1740	PD01941	TRANSMEMBRANE COTRANSPORTER SYMP.	PD01941C 19.96 4.960e-16 84- 139 PD01941B 15.02 2.093e-11 4-51
1742	BL00672	Serine proteases, V8 family, histidine proteins.	BL00672B 9.84 3.554e-09 214- 231
1742	PR00839	V8 SERINE PROTEASE FAMILY SIGNATURE	PR00839E 12.04 8.062e-09 213- 230
1745	BL00674	AAA-protein family proteins.	BL00674B 4.46 7.814e-10 360- 382
1745	DM01022	LRR REPEAT.	DM01022A 7.35 1.900e-09 954-

SEQ ID NO:	Database entry ID	Description	Results*
			961
1745	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 6.186e-09 267- 282
1746	BL00674	AAA-protein family proteins.	BL00674B 4.46 7.814e-10 360- 382
1746	DM01022	LRR REPEAT.	DM01022A 7.35 1.900e-09 954- 961
1746	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 6.186e-09 267- 282
1747	BL00215	Mitochondrial energy transfer proteins.	BL00215A 15.82 9.591e-18 206- 231 BL00215A 15.82 4.000e-15 104-129 BL00215A 15.82 9.400e-15 7-32 BL00215B 10.44 1.000e-10 154-167
1747	PR00927	ADENINE NUCLEOTIDE TRANSLOCATOR 1 SIGNATURE	PR00927G 11.07 9.036e-11 158- 174 PR00927B 14.66 4.652e-10 239-261
1747	PR00926	MITOCHONDRIAL CARRIER PROTEIN SIGNATURE	PR00926F 17.75 2.826e-09 9-32 PR00926F 17.75 3.217e-09 208- 231
1749	BL01013	Oxysterol-binding protein family proteins.	BL01013A 25.14 5.500e-21 537- 573 BL01013D 26.81 2.161e-18 807-851 BL01013C 9.97 4.231e- 13 625-635 BL01013B 11.33 3.017e-11 603-614
1751	BL00711	Lipoxygenases iron-binding region proteins.	BL00711I 18.56 8.630e-28 577- 615 BL00711E 19.66 3.550e-22 414-451 BL00711G 21.83 9.100e-22 503-535 BL00711C 20.75 5.959e-19 268-297 BL00711D 17.56 1.923e-16 347- 373 BL00711H 23.34 1.771e-12 535-574 BL00711F 19.79 2.086e- 10 484-501
1751	PR00087	LIPOXYGENASE SIGNATURE	PR00087C 15.00 1.184e-17 423- 444 PR00087A 18.37 7.061e-12 385-403 PR00087B 15.25 5.091e- 10 403-421
1751	PR00467	MAMMALIAN LIPOXÝGENASE SIGNATURE	PR00467E 9.00 3.400e-14 344- 364 PR00467D 16.69 4.082e-09 243-265
1753	PR00492	RHO PROTEIN GDP DISSOCIATION INHIBITOR SIGNATURE	PR00492C 9.68 1.900e-23 122- 139 PR00492B 9.77 8.579e-23 76-95 PR00492D 14.82 8.200e-21 139-155 PR00492A 11.92 1.643e- 18 60-76
1756	BL00378	Hexokinases proteins.	BL00378A 19.01 8.500e-09 403- 431
1757	BL00027	'Homeobox' domain proteins.	BL00027 26.43 8.615e-33 35-78
1757	BL00032	'Homeobox' antennapedia-type protein.	BL00032B 10.83 4.259e-27 24-63 BL00032C 11.28 5.909e-20 63-81
1757	PR00025	HOMEOTIC ANTENNAPEDIA PROTEIN SIGNATURE	PR00025B 11.94 4.000e-11 21-37
1757	PR00031	LAMBDA AND OTHER REPRESSOR HELIX-TURN-HELIX SIGNATURE	PR00031B 16.29 4,960e-11 58-75
1757	PR00024	HOMEOBOX SIGNATURE	PR00024C 7.49 9.357e-13 67-77 PR00024B 11.27 3.500e-11 57-68 PR00024A 11.87 9.400e-11 42-54

SEQ ID	Database	Description	Results*
NO:	entry ID		
1758	PR00179	LIPOCALIN SIGNATURE	PR00179B 9.56 1.000e-12 102- 115 PR00179C 19.02 1.000e-10 130-146 PR00179A 13.78 5.680e- 10 37-50
1758	BL00213	Lipocalin proteins.	BL00213B 8.78 8.000e-10 102- 113 BL00213A 12.95 9.526e-10 37-51
1759	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 1.818e-11 164- 187
1762	BL00269	Mammalian defensins proteins.	BL00269C 16.52 7.158e-09 171- 200
1762	PD02283	PROTEIN SPORULATION REPEAT PRECU.	PD02283C 17.54 5.855e-10 57-85 PD02283C 17.54 5.855e-10 87- 115 PD02283C 17.54 6.566e-10 117-145 PD02283C 17.54 1.450e- 09 47-75 PD02283C 17.54 1.450e-09 77-105 PD02283C 17.54 1.450e-09 107-135 PD02283C 17.54 5.613e-09 67-95 PD02283C 17.54 5.613e-09 97- 125 PD02283C 17.54 6.175e-09 137-165 PD02283C 17.54 7.525e- 09 37-65 PD02283C 17.54 8.875e-09 147-175
1762	BL00203	Vertebrate metallothioneins proteins.	BL00203 13.94 3.379e-12 95-141 BL00203 13.94 3.690e-12 65-111 BL00203 13.94 2.978e-11 35-81 BL00203 13.94 5.549e-11 39-85 BL00203 13.94 6.538e-11 55-101 BL00203 13.94 6.538e-11 55-101 BL00203 13.94 7.231e-11 34-80 BL00203 13.94 7.429e-11 125- 171 BL00203 13.94 7.527e-11 69-115 BL00203 13.94 8.220e-11 99-145 BL00203 13.94 8.220e-11 99-145 BL00203 13.94 2.053e-10 94-140 BL00203 13.94 2.149e-10 124-170 BL00203 13.94 2.819e- 10 159-205 BL00203 13.94 5.213e-10 54-100 BL00203 13.94 5.213e-10 54-100 BL00203 13.94 5.691e-10 89-135 BL00203 13.94 5.691e-10 89-135 BL00203 13.94 5.691e-10 115-161 BL00203 13.94 7.702e-10 49-95 BL00203 13.94 7.511e-10 115-161 BL00203 13.94 1.551e-09 44-90 BL00203 13.94 1.551e-09 44-90 BL00203 13.94 1.551e-09 90-136 BL00203 13.94 4.031e-09 30-76 BL00203 13.94 4.306e-09 60-106 BL00203 13.94 4.306e-09 60-106 BL00203 13.94 5.133e-09 145- 191 BL00203 13.94 6.235e-09 119-165 BL00203 13.94 6.327e- 09 50-96 BL00203 13.94

SEQ ID NO:	Database entry ID	Description	Results*
			6.694e-09 45-91 BL00203 13,94 6.694e-09 75-121 BL00203 13.94 8.898e-09 104-150
1763	BL00216	Sugar transport proteins.	BL00216B 27.64 5.846e-09 141- 191
1766	BL00456	Sodium:solute symporter family proteins.	BL00456A 22.59 2.080e-30 83- 138 BL00456C 24.55 3.721e-29 221-276 BL00456B 18.94 1.000e- 22 159-189
1766	PR00175	SODIUM/ALANINE SYMPORTER SIGNATURE	PR00175B 10.80 9.878e-09 226- 245
1767	BL00142	Neutral zinc metallopeptidases, zinc-binding region proteins.	BL00142 8.38 1.857e-09 494-505
1768	BL00509	Ras GTPase-activating proteins.	BL00509B 10.28 1.643e-12 610- 621
1772	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 6.143e-13 252-266 PR00048A 10.52 7.429e-13 476-490 PR00048A 10.52 3.118e-12 336-350 PR00048A 10.52 3.118e-12 364-378 PR00048A 10.52 4.706e-12 504-518 PR00048A 10.52 8.412e-12 224-238 PR00048A 10.52 8.412e-12 224-238 PR00048A 10.52 3.842e-11 392-406 PR00048A 10.52 6.211e-11 308-322 PR00048A 10.52 6.211e-11 448-462 PR00048B 6.02 7.231e-11 492-502 PR00048B 6.02 3.250e-10 240-250 PR00048A 10.52 6.870e-10 420-434 PR00048B 6.02 2.421e-09 380-390
1772	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 8.800e-14 327- 340 PD00066 13.92 1.500e-13 411-424 PD00066 13.92 5.500e- 13 383-396 PD00066 13.92 5.500e-13 439-452 PD00066 13.92 7.500e-13 495-508 PD00066 13.92 9.000e-13 467- 480 PD00066 13.92 3.571e-12 355-368 PD00066 13.92 7.000e- 12 271-284 PD00066 13.92 7.923e-10 299-312 PD00066 13.92 2.500e-09 243-256
1772	BL00028 PR00122	Zinc finger, C2H2 type, domain proteins. VACUOLAR ATP SYNTHASE 16 KD	BL00028 16.07 3.250e-13 395- 412 BL00028 16.07 5.950e-13 367-384 BL00028 16.07 6.478e- 12 451-468 BL00028 16.07 8.435e-12 339-356 BL00028 16.07 1.692e-11 255-272 BL00028 16.07 3.769e-11 227- 244 BL00028 16.07 5.154e-11 507-524 BL00028 16.07 2.200e- 10 479-496 BL00028 16.07 9.400e-10 199-216 BL00028 16.07 2.029e-09 423-440 BL00028 16.07 3.571e-09 311- 328 PR00122D 9.97 7.214e-11 103-

SEQ ID NO:	Database entry ID	Description	Results*
		SUBUNIT SIGNATURE	127 PR00122C 8.20 9.526e-10 76-103
1773	BL00605	ATP synthase c subunit proteins.	BL00605 27.67 4.977e-09 70-124
1774	BL00518	Zinc finger, C3HC4 type (RING finger), proteins.	BL00518 12.23 6.571e-10 30-39
1776	BL01160	Kinesin light chain repeat proteins.	BL01160B 19.54 1.610e-09 33-87 BL01160B 19.54 9.619e-09 65- 119
1783	PD02411	PROTEIN TRANSCRIPTION REGULATION NUCLEAR.	PD02411 21.89 6.786e-15 3967- 4001
1783	PF00856	SET domain proteins.	PF00856B 16.42 6.595e-19 3949- 3971 PF00856A 26.14 4.125e-12 3896-3933
1783	PF00628	PHD-finger.	PF00628 15.84 3.455e-12 86-101 PF00628 15.84 7.750e-10 38-53 PF00628 15.84 5.645e-09 164-179
1783	BL00115	Eukaryotic RNA polymerase II heptapeptide repeat proteins.	BL00115Z 3.12 4.971e-09 2575- 2624 BL00115Z 3.12 7.750e-09 2582-2631
1784	DM01970	0 kw ZK632.12 YDR313C ENDOSOMAL III.	DM01970B 8.60 9.423e-10 111- 124
1785	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 2.174e-10 177- 191
1790	PF00922	Vesiculovirus phosphoprotein.	PF00922A 19.17 7.724e-09 276- 310
1792	PD02059	CORE POLYPROTEIN PROTEIN GAG CONTAINS: P.	PD02059A 28.10 5.950e-10 34-75
1794	BL00326	Tropomyosins proteins.	BL00326D 8.76 8.065e-09 165- 206
1795	BL00326	Tropomyosins proteins.	BL00326D 8.76 8.065e-09 173- 214
1797	PR00563	BETA-3 ADRENERGIC RECEPTOR SIGNATURE	PR00563B 3.98 8.141e-09 8-28
1799	PR00450	RECOVERIN FAMILY SIGNATURE	PR00450C 12.22 1.570e-09 285- 307
1801	PD00066	PROTEIN ZINC-FINGER MÉTAL-BINDI.	PD00066 13.92 8.800e-14 290- 303 PD00066 13.92 4.000e-13 234-247 PD00066 13.92 4.429e- 12 262-275 PD00066 13.92 9.217e-11 206-219 PD00066 13.92 3.769e-10 505-518 PD00066 13.92 4.115e-10 449- 462 PD00066 13.92 4.462e-10 533-546 PD00066 13.92 6.538e- 10 477-490
1801	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 5.091e-15 243- 257 PR00048A 10.52 7.750e-14 542-556 PR00048A 10.52 3.647e- 12 215-229 PR00048A 10.52 4.176e-12 486-500 PR00048B 6.02 6.000e-12 231-241 PR00048B 6.02 6.000e-12 287- 297 PR00048A 10.52 7.353e-12 187-201 PR00048A 10.52 6.684e- 11 271-285 PR00048A 10.52 4.130e-10 299-313 PR00048A 10.52 3.520e-09 430-444 PR00048A 10.52 3.880e-09 514-

SEQ ID NO:	Database entry ID	Description	Results*
			528 PR00048A 10.52 6.400e-09 458-472 PR00048A 10.52 8.560e- 09 159-173
1801	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 1.563e-15 545- 562 BL00028 16.07 1.450e-13 218-235 BL00028 16.07 3.348e- 12 489-506 BL00028 16.07 7.652e-12 274-291 BL00028 16.07 2.385e-11 433-450 BL00028 16.07 4.115e-11 517- 534 BL00028 16.07 5.154e-11 246-263 BL00028 16.07 1.000e- 10 302-319 BL00028 16.07 5.200e-10 461-478 BL00028 16.07 6.700e-10 190-207 BL00028 16.07 1.257e-09 357- 374 BL00028 16.07 9.486e-09 162-179
1802	BL00615	C-type lectin domain proteins.	BL00615A 16.68 8.920e-11 137- 155
1802	PR00770	EOSINOPHIL MAJOR BASIC PROTEIN SIGNATURE	PR00770F 13.79 1.774e-09 198- 218
1802	PR00356	TYPE II ANTIFREEZE PROTEIN SIGNATURE	PR00356B 14.85 2.521e-09 137- 155
1803	BL00615	C-type lectin domain proteins.	BL00615A 16.68 8.920e-11 176- 194
1803	PR00770	EOSÍNOPHIL MAJOR BASIC PROTEIN SIGNATURE	PR00770F 13.79 1.774e-09 237- 257
1803	PR00356	TYPE II ANTIFREEZE PROTEIN SIGNATURE	PR00356B 14.85 2.521e-09 176- 194
1804	BL00018	EF-hand calcium-binding domain proteins.	BL00018 7.41 9.000e-14 65-78
1806	PR00019	LEUCINE-RICH REPEAT SIGNATURE	PR00019B 11.36 1.000e-09 219- 233
1808	PD02474	SYNTHASE SMALL SUBUNIT ACETOLACT.	PD02474B 21.08 8.568e-09 199- 238
1809	PF00922	Vesiculovirus phosphoprotein.	PF00922A 19.17 1.000e-08 249- 283
1812	PR00289	DISINTEGRIN SIGNATURE	PR00289B 11.79 1.947e-09 522- 535
1814	PF00242	DNA polymerase (viral) N-terminal domain proteins.	PF00242F 12.18 8.522e-09 197- 219
1815	PR00780	LEUSERPIN 2 SIGNATURE	PR00780B 4.89 4.491e-09 262- 285
1816	BL00226	Intermediate filaments proteins.	BL00226D 19.10 8.027e-13 208- 255
1817	PD01876	ANTIGEN MELANOMA-ASSOCIATED MULTIGENE FAMILY TUM.	PD01876C 21.73 3.326e-15 481- 534 PD01876C 21.73 3.045e-10 735-788
1818	PR00747	GLYCOSYL HYDROLASE FAMILY 47 SIGNATURE	PR00747C 12.06 8.767e-09 337- 356
1820	DM01782	HYDROGENASE (FE) LARGE CHAIN.	DM01782C 13.88 4.400e-19 349- 368 DM01782F 9.01 4.375e-18 499-515 DM01782B 17.29 3.412e-10 294-327
1821	BL00226	Intermediate filaments proteins.	BL00226D 19.10 7.375e-38 321- 368 BL00226B 23.86 7.107e-32 155-203 BL00226C 13.23 3.100e-

SEQ ID NO:	Database entry ID	Description	Results*
			19 220-251 BL00226A 12.77 7.000e-15 55-70 BL00226D 19.10 7.800e-09 254-301
1822	DM01415	6 SALIVARY GLUE PROTEIN.	DM01415B 13.78 9.518e-10 4-52
1822	BL00026	Chitin recognition or binding domain proteins.	BL00026 12.95 3.013e-09 43-64
1822	PD02283	PROTEIN SPORULATION REPEAT PRECU.	PD02283C 17.54 3.588e-09 110- 138 PD02283C 17.54 3.588e-09 120-148
1822	PD00866	GLYCOPROTEIN PROTEIN SPIKE E2 PRECURSOR PEPLOMER.	PD00866L 3.73 1.443e-09 21-31 PD00866L 3.73 2.770e-09 97-107 PD00866L 3.73 2.770e-09 146- 156 PD00866L 3.73 2.918e-09 7- 17 PD00866L 3.73 2.918e-09 14- 24 PD00866L 3.73 4.541e-09 4- 14
1822	PR00858	CRUSTACEAN METALLOTHIONEIN SIGNATURE	PR00858B 5.93 2.819e-09 84-103 PR00858B 5.93 5.021e-09 114- 133 PR00858B 5.93 5.021e-09 124-143
1822	PR00875	MOLLUSC METALLOTHIONEIN SIGNATURE	PR00875B 5.24 6.595e-09 85-93
1822	PR00874	FUNGI-IV METALLOTHIONEIN SIGNATURE	PR00874C 4.37 9.739e-10 73-88 PR00874C 4.37 7.250e-09 83-98
1822	BL00243	Integrins beta chain cysteine-rich domain proteins.	BL00243I 31.77 3.143e-11 13-56 BL00243I 31.77 3.647e-10 26-69 BL00243I 31.77 6.426e-10 106- 149 BL00243I 31.77 7.088e-10 96-139 BL00243I 31.77 9.338e- 10 36-79 BL00243I 31.77 1.254e- 09 46-89 BL00243I 31.77 6.451e- 09 3-46 BL00243I 31.77 6.704e- 09 77-120 BL00243I 31.77 7.211e-09 67-110 BL00243I 31.77 7.592e-09 116-159 BL00243I 31.77 8.606e-09 92-135
1822	BL00198	4Fe-4S ferredoxins, iron-sulfur binding region proteins.	BL00198 10.43 9.700e-09 6-18
	BL00203	Vertebrate metallothioneins proteins.	BL00203 13.94 8.024e-14 102- 148 BL00203 13.94 7.750e-13 127-173 BL00203 13.94 1.103e- 12 97-143 BL00203 13.94 3.172e-12 103-149 BL00203 13.94 3.379e-12 92-138 BL00203 13.94 4.207e-12 98-144 BL00203 13.94 4.207e-12 116-162 BL00203 13.94 5.345e-12 71-117 BL00203 13.94 5.345e-12 107- 153 BL00203 13.94 9.897e-12 106-152 BL00203 13.94 1.791e- 11 118-164 BL00203 13.94 2.879e-11 126-172 BL00203 13.94 3.176e-11 87-133 BL00203 13.94 4.758e-11 61-107 BL00203 13.94 5.846e-11 113-159 BL00203 13.94 6.044e-11 112- 158 BL00203 13.94 7.231e-11 93-139 BL00203 13.94 1.287e-10

SEQ ID NO:	Database entry ID	Description	Results*	
NO:	entry ID		128-174 BL00203 13.94 2.245e- 10 76-122 BL00203 13.94 3.202e-10 23-69 BL00203 13.94 4.926e-10 78-124 BL00203 13.94 6.362e-10 81-127 BL00203 13.94 6.553e-10 82-128 BL00203 13.94 6.840e-10 111-157 BL00203 13.94 8.851e-10 43-89 BL00203 13.94 8.851e-10 96-142 BL00203 13.94 2.837e-09 8-54 BL00203 13.94 3.296e-09 72-118 BL00203 13.94 3.847e-09 117-163	
			BL00203 13.94 3.939e-09 86-132 BL00203 13.94 5.592e-09 123- 169 BL00203 13.94 5.776e-09 108-154 BL00203 13.94 6.143e- 09 30-76 BL00203 13.94 6.143e- 09 79-125 BL00203 13.94	
			6.969e-09 121-167 BL00203 13.94 7.612e-09 16-62 BL00203 13.94 7.796e-09 101-147 BL00203 13.94 8.163e-09 33-79 BL00203 13.94 9.633e-09 77-123 BL00203 13.94 1.000e-08 66-112	
1824	PR00860	VERTEBRATE METALLOTHIONEIN SIGNATURE	PR00860B 7.04 2.929e-20 74-88 PR00860A 5.46 5.655e-13 52-65 PR00860C 9.61 2.400e-12 88-98	
1824	PR00858	CRUSTACEAN METALLOTHIONEIN SIGNATURE	PR00858B 5.93 1.419e-11 70-89 PR00858B 5.93 7.070e-11 65-84	
1824	PR00874	FUNGI-IV METALLOTHIONEIN SIGNATURE	PR00874C 4.37 3.478e-10 64-79	
1824	BL00243	Integrins beta chain cysteine-rich domain proteins.	BL00243H 17.53 7.875e-10 59-85 BL00243I 31.77 4.803e-09 65-108	
1824	PR00876	NEMATODE METALLOTHIONEIN SIGNATURE	PR00876D 5.77 2.191e-10 62-75 PR00876A 6.60 5.886e-09 61-74	
1824	BL00203	Vertebrate metallothioneins proteins.	BL00203 13.94 1.000e-40 62-108 BL00203 13.94 7.429e-09 54-100 BL00203 13.94 8.071e-09 52-98 BL00203 13.94 8.806e-09 55-101	
1824	PR00875	MOLLUSC METALLOTHIONEIN SIGNATURE	PR00875D 5.00 9.471e-09 59-70	
1825	PR00360	C2 DOMAIN SIGNATURE	PR00360B 13.61 7.136e-09 572- 586	
1825	PR00399	SYNAPTOTAGMIN SIGNATURE	PR00399A 9.52 8.875e-09 360- 376	
1829	DM01206	CORONAVIRUS NUCLEOCAPSID PROTEIN.	DM01206B 10.69 8.767e-10 567- 587 DM01206B 10.69 1.000e-09 563-583	
1829	PD01351	PROTEIN REPEAT NEUROFILAMENT TRIPL.	PD01351B 13.72 6.786e-10 196- 222 PD01351B 13.72 2.597e-09 198-224	
1829	BL00035	'POU' domain proteins.	BL00035B 14.46 3.127e-09 634- 655	
1829	BL00229	Tau and MAP proteins tubulin-binding domain proteins.	BL00229A 23.57 3.182e-09 178- 217	
1829	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	PR00049D 0.00 3.647e-11 204- 219 PR00049D 0.00 9.47le-11 209-224 PR00049D 0.00 8.500e-	
		313		

SEQ ID NO:	Database entry ID	Description	Results*
			10 206-221 PR00049D 0.00 8.500e-10 207-222 PR00049D 0.00 3.746e-09 182-197
1829	BL00319	Amyloidogenic glycoprotein extracellular domain proteins.	BL00319C 17.12 3.132e-09 265- 299 BL00319C 17.12 4.553e-09 1013-1047 BL00319C 17.12 5.618e-09 1019-1053 BL00319C 17.12 7.395e-09 267-301 BL00319C 17.12 7.632e-09 1017- 1051
1829	DM00215	PROLINE-RICH PROTEIN 3.	DM00215 19.43 3.089e-10 185- 218 DM00215 19.43 8.393e-10 190-223 DM00215 19.43 2.373e- 09 186-219 DM00215 19.43 7.102e-09 183-216 DM00215 19.43 8.169e-09 188-221
1829	BL00422	Granins proteins.	BL00422C 16.18 8.588e-09 263- 291
1829	BL00412	Neuromodulin (GAP-43) proteins.	BL00412D 16.54 9.182e-11 1005- 1056 BL00412D 16.54 9.120e-10 1004-1055 BL00412D 16.54 4.857e-09 1003-1054 BL00412D 16.54 8.347e-09 1008-1059 BL00412D 16.54 9.449e-09 1001- 1052
1829	PR00832	PAXILLIN SIGNATURE	PR00832B 9.87 9.526e-09 377- 401
1829	PD02059	CORE POLYPROTEIN PROTEIN GAG CONTAINS: P.	PD02059B 24.48 9.620e-09 196- 231
1829	PF00992	Troponin.	PF00992A 16.67 9.882e-09 1005- 1040
1829	BL00048	Protamine P1 proteins.	BL00048 6.39 6.949e-15 569-596 BL00048 6.39 1.885e-14 568-595 BL00048 6.39 3.361e-14 570-597 BL00048 6.39 8.377e-14 577-604 BL00048 6.39 8.377e-14 578-605 BL00048 6.39 3.631e-13 571-598 BL00048 6.39 4.738e-13 576-603 BL00048 6.39 7.369e-13 582-609 BL00048 6.39 2.456e-12 575-602 BL00048 6.39 3.515e-12 567-594 BL00048 6.39 5.235e-12 581-608 BL00048 6.39 5.235e-12 581-608 BL00048 6.39 5.235e-12 583-610 BL00048 6.39 2.250e-11 572-599 BL00048 6.39 2.875e-11 585-612 BL00048 6.39 5.375e-11 585-612 BL00048 6.39 7.375e-11 585-616 BL00048 6.39 7.500e-11 580-607 BL00048 6.39 2.895e-10 566-593 BL00048 6.39 5.382e-10 574-601 BL00048 6.39 5.500e-10 566-593 BL00048 6.39 5.500e-10 566-593 BL00048 6.39 5.500e-10 566-593 BL00048 6.39 5.500e-10 566-593 BL00048 6.39 5.500e-10 566-593 BL00048 6.39 5.500e-10 566-593 BL00048 6.39 5.500e-10 566-593 BL00048 6.39 9.882e-10 592-619

SEQ ID	Database	Description	D14-+
NO:	entry ID	Description	Results*
			BL00048 6.39 1.450e-09 590-617
İ	ł	Ì	BL00048 6.39 3.925e-09 560-587
			BL00048 6.39 4.488e-09 562-589
	1		BL00048 6.39 4.938e-09 579-606
			BL00048 6.39 5.275e-09 564-591
			BL00048 6.39 5.725e-09 558-585
			BL00048 6.39 5.725e-09 587-614
			BL00048 6.39 6.625e-09 555-582 BL00048 6.39 7.075e-09 556-583
ļ			BL00048 6.39 9.438e-09 559-586
			BL00048 6.39 9.888e-09 600-627
1829	PD01234	PROTEIN NUCLEAR BROMODOMAIN	PD01234B 15.53 1.000e-08 201-
	l	TRANS.	219
1830	BL00092	N-6 Adenine-specific DNA methylases	BL00092 5.35 2.000e-09 136-145
		proteins.	
1831	PR00511	TEKTIN SIGNATURE	PR00511A 13.59 3.700e-14 113- 130
1833	PR00764	COMPLEMENT C9 SIGNATURE	PR00764F 16.89 2.286e-09 158-
1000	DY 00000	TOTAL TOTAL	179
1833	BL00022	EGF-like domain proteins.	BL00022B 7.54 4.600e-09 138-
1833	BL01187	Calcium-binding EGF-like domain proteins	145 BL01187B 12.04 4.086e-10 167-
1655	BLUTTO	pattern proteins.	183 BL01187B 12.04 4.600e-09
	ļ	pattern proteins.	104-120
1833	BL01185	C-terminal cystine knot proteins.	BL01185B 21.14 6.929e-09 146-
	1	, , , , , , , , , , , , , , , , , , , ,	195
1833	PR00010	TYPE II EGF-LIKE SIGNATURE	PR00010C 11.16 7.429e-09 109-
			120 PR00010C 11.16 7.643e-09
			172-183 PR00010A 11.79 8.846e-
1000	PD 00011	TWO IN PORT WAR OLOVE TO THE	09 190-202
1833	PR00011	TYPE III EGF-LIKE SIGNATURE	PR00011A 14.06 4.822e-09 208- 227 PR00011D 14.03 8.957e-09
			67-86
1833	BL00243	Integrins beta chain cysteine-rich domain	BL00243I 31.77 1.000e-08 34-77
	55002.5	proteins.	2200213131.771.0000 00 3-4-77
1835	BL01279	Protein-L-isoaspartate(D-aspartate) O-	BL01279A 24.27 3.691e-09 419-
L		methyltransferase signa.	467
1835	BL01131	Ribosomal RNA adenine dimethylases	BL01131A 26.62 4.600e-09 421-
		proteins.	467
1835	BL01230	RNA methyltransferase trmA family proteins.	BL01230E 15.79 6.607e-11 571-
			587 BL01230A 17.88 8.962e-10
l			409-428 BL01230B 11.62 8.475e-
1835	PR00049	WILM'S TUMOUR PROTEIN SIGNATURE	09 436-449 PR00049D 0.00 8.780e-09 598-
1033	7 KUUU49	WILMS TOMOUR FROTEIN SIGNATURE	613
1837	PD01719	PRECURSOR GLYCOPROTEIN SIGNAL	PD01719A 12.89 2.603e-11 259-
••••		RE.	287 PD01719A 12.89 8.105e-10
	[199-227
1838	BL01162	Quinone oxidoreductase / zeta-crystallin	BL01162C 22.80 1.269e-18 151-
		proteins.	195 BL01162A 15.38 1.265e-11
			64-87
1838	BL00279	Membrane attack complex components /	BL00279C 31.64 3.156e-09 134-
L		perforin proteins.	188
1838	BL00059	Zinc-containing alcohol dehydrogenases proteins.	BL00059B 16.08 7.273e-09 93- 121
1841	PD01066	PROTEIN ZINC FINGER ZINC-FINGER	PD01066 19.43 5.415e-26 46-85
L		METAL-BINDING NU.	

SEQ ID	Database	Description	Results*
NO:	entry ID	COLIO TYPE ADIO DE CORD CIONA DE	DD000404 10 50 5 555
1841	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 5.737e-11 140- 154 PR00048A 10.52 6.087e-10 224-238
1841	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 4.130e-12 227- 244 BL00028 16.07 7.577e-11 352-369 BL00028 16.07 3.400e- 10 380-397 BL00028 16.07 6.400e-10 199-216 BL00028 16.07 1.257e-09 143-160 BL00028 16.07 2.029e-09 171- 188 BL00028 16.07 5.886e-09 408-425
1841	PR00967	ACUTE MYELOID LEUKEMIA 1 PROTEIN SIGNATURE	PR009671 12.41 8.130e-09 466- 481
1841	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 2.038e-10 187- 200 PD00066 13.92 1.600e-09 396-409 PD00066 13.92 9.400e- 09 215-228
1841	BL00479	Phorbol esters / diacylglycerol binding domain proteins.	BL00479A 19.86 6.553e-09 214- 237 BL00479A 19.86 9.809e-09 367-390
1842	PD02910	TRANSCRIPTION PROTEIN FACTOR REGULATION A.	PD02910A 15.43 9.839e-09 62-97
1843	PD02199	SUBUNIT HYDROGEN ION TRANSPORT T.	PD02199A 20.58 1.000e-40 10-61 PD02199D 13.18 1.000e-40 364- 405 PD02199F 15.02 1.000e-40 440-482 PD02199J 11.42 1.000e- 40 723-762 PD02199K 15.22 1.000e-40 792-831 PD02199G 9.43 4.447e-24 531-555 PD02199B 27.90 1.474e-22 263- 306 PD02199H 13.62 2.636e-21 576-599 PD02199E 7.56 8.642e- 19 405-424 PD02199C 17.60 8.085e-14 313-329 PD021991 8.90 4.780e-09 616-624
1844	BL00218	Amino acid permeases proteins.	BL00218E 23.30 5.920e-10 343- 383
1845	BL00048	Protamine P1 proteins.	BL00048 6.39 9.526e-10 160-187
1845	BL00422	Granins proteins.	BL00422C 16.18 4.000e-09 590- 618
1845	PR00833	POLLEN ALLERGEN POA PI SIGNATURE	PR00833H 2.30 8.385e-09 943- 958
1845	PF00992	Troponin.	PF00992A 16.67 7.900e-13 568-603 PF00992A 16.67 4.090e-11 566-601 PF00992A 16.67 5.817e-10 570-605 PF00992A 16.67 8.479e-10 579-614 PF00992A 16.67 2.066e-09 564-599 PF00992A 16.67 4.789e-09 575-610 PF00992A 16.67 4.908e-09 532-567 PF00992A 16.67 6.803e-09 536-571 PF00992A 16.67 7.632e-09 562-597 PF00992A 16.67 8.697e-09 585-620 PF00992A 16.67 9.053e-09 583-618 PF00992A 16.67 9.289e-09 516-551

SEQ ID	Database	Description	Results*
NO:			
NO: 1845	entry ID PF01140	Matrix protein (MA), p15.	PF01140D 15.54 8.500e-12 505- 540 PF01140D 15.54 7.120e-11 584-619 PF01140D 15.54 9.760e- 11 586-621 PF01140D 15.54 3.813e-10 588-623 PF01140D 15.54 4.938e-10 563-598 PF01140D 15.54 6.738e-10 519- 554 PF01140D 15.54 8.313e-10 503-538 PF01140D 15.54 9.325e- 10 549-584 PF01140D 15.54 9.663e-10 567-602 PF01140D 15.54 9.775e-10 565-600 PF01140D 15.54 1.000e-09 582- 617 PF01140D 15.54 2.884e-09 575-610 PF01140D 15.54 3.198e- 09 551-586 PF01140D 15.54 3.302e-09 517-552 PF01140D 15.54 4.140e-09 533-568 PF01140D 15.54 4.872e-09 578- 613 PF01140D 15.54 4.872e-09 578- 613 PF01140D 15.54 6.860e-09 581-616 PF01140D 15.54 7.174e- 09 594-629 PF01140D 15.54 7.384e-09 576-611 PF01140D 15.54 7.593e-09 572-607 PF01140D 15.54 8.640e-09 570- 605 PF01140D 15.54 8.744e-09 596-631 PF01140D 15.54 9.163e-09 577-612 PF01140D 15.54 9.267e-09 579-614
		·	PF01140D 15.54 9.791e-09 574-
L]		609 PF01140D 15.54 1.000e-08 531-566
1848	BL00811	Oleosins proteins.	BL00811B 10.57 9.791e-09 307- 336
1852	BL00415	Synapsins proteins.	BL00415N 4.29 4.153e-09 301- 345
1852	DM00668	ZEIN.	DM00668B 22.01 8.018e-09 291- 343
1853	BL00107	Protein kinases ATP-binding region proteins.	BL00107A 18.39 3.250e-17 133- 164
1853	PR00109	TYROSINE KINASE CATALYTIC DOMAIN SIGNATURE	PR00109E 14.41 3.045e-11 254- 277
1853	PF00791	Domain present in ZO-1 and Unc5-like netrin receptors.	PF00791B 28.49 2.317e-16 689- 744 PF00791B 28.49 3.753e-15 523-578 PF00791B 28.49 4.316e- 12 656-711 PF00791B 28.49 1.727e-11 589-644 PF00791B 28.49 3.636e-11 556-611 PF00791C 20.98 4.913e-11 570- 609 PF00791B 28.49 6.330e-10 722-777 PF00791C 20.98 5.853e- 09 703-742
1853	PF00023	Ank repeat proteins.	PF00023A 16.03 5.200e-13 722- 738 PF00023B 14.20 1.000e-12 652-662 PF00023A 16.03 2.000e- 12 755-771 PF00023A 16.03 7.857e-11 656-672 PF00023A

SEQ ID	Database	Description	Results*
NO:	entry ID	-	
			16.03 8.286e-11 622-638 PF00023B 14.20 4.682e-09 519- 529 PF00023A 16.03 6.143e-09 589-605 PF00023A 16.03 6.786e- 09 689-705
1853	PD00078	REPEAT PROTEIN ANK NUCLEAR ANKYR.	PD00078B 13.14 9.000e-11 582- 595 PD00078B 13.14 8.435e-09 649-662
1854	PR00449	TRANSFORMING PROTEIN P21 RAS SIGNATURE	PR00449A 13.20 4.971e-14 4-26
1856	BL00317	WAP-type 'four-disulfide core' domain proteins.	BL00317B 14.58 3.550e-13 48-70
1856	PR00003	4-DISULPHIDE CORE SIGNATURE	PR00003C 7.69 6.357e-09 54-64
1857	BL01019	ADP-ribosylation factors family proteins.	BL01019B 19.49 7.517e-21 95- 150
1857	BL01020	SAR1 family proteins.	BL01020C 15.35 2.301e-18 79- 130
1857	PR00328	GTP-BINDING SAR1 PROTEIN SIGNATURE	PR00328C 13.16 2.841e-10 78- 104
1858	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 2.385e-15 128- 141 PD00066 13.92 5.714e-12 100-113
1858	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048B 6.02 7.188e-10 97-107 PR00048B 6.02 3.842e-09 125- 135 PR00048A 10.52 6.040e-09 137-151
1859	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 1.000e-11 174- 188 PR00048B 6.02 1.692e-11 162-172
1859	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 3.739e-11 165- 178
1859	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 2.385e-11 177- 194 BL00028 16.07 3,769e-11 121-138 BL00028 16.07 8.269e- 11 149-166
1860	PF00651	BTB (also known as BR-C/Ttk) domain proteins.	PF00651 15.00 2.895e-11 45-58
1860	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 2.038e-10 419- 432 PD00066 13.92 7.231e-10 391-404
1860	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048A 10.52 5.696e-10 400- 414 PR00048A 10.52 8.435e-10 428-442
1860	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 8.269e-11 403- 420 BL00028 16.07 3.400e-10 375-392 BL00028 16.07 3.057e- 09 431-448
1861	DM00547	I kw CHROMO BROMODOMAIN SHADOW GLOBAL.	DM00547F 23.43 7.643e-34 606- 653 DM00547B 11.28 7.907e-16 155-169 DM00547C 17.30 8.650e-14 209-231 DM00547D 11.60 6.500e-13 277-291 DM00547E 13.94 1.000e-11 307- 330
1861	BL00039	DEAD-box subfamily ATP-dependent helicases proteins.	BL00039D 21.67 6.379e-10 590- 636
1862	BL01115	GTP-binding nuclear protein ran proteins.	BL01115A 10.22 5.330e-11 18-62

SEQ ID NO:	Database entry ID	Description	Results*
1862	BL01019	ADP-ribosylation factors family proteins.	BL01019A 13.20 1.809e-09 52-92
1862	PR00449	TRANSFORMING PROTEIN P21 RAS SIGNATURE	PR00449C 17.27 3.647e-19 59-82 PR00449A 13.20 7.000e-15 18-40 PR00449D 10.79 8.875e-14 121- 135 PR00449E 13.50 8.920e-14 157-180 PR00449B 14.34 8.500e- 09 41-58
1867	BL01283	T-box domain proteins.	BL01283D 11.70 7.868e-31 59-92 BL01283C 13.05 2.537e-14 25-39
1867	PR00937	T-BOX DOMAIN SIGNATURE	PR00937D 13.41 5.378e-15 24-39 PR00937F 12.53 1.450e-12 83-92 PR00937E 11.86 5.592e-12 62-76 PR00937C 10.51 5.219e-10 5-15
1870	DM01803	1 HERPESVIRUS GLYCOPROTEIN H.	DM01803A 10.51 8.699e-09 100- 121
1872	BL00470	Isocitrate and isopropylmalate dehydrogenases proteins.	BL00470A 16.25 5.179e-14 10-31 BL00470C 15.43 4.103e-10 223- 238 BL00470E 16.52 1.900e-09 287-297
1873	PF00023	Ank repeat proteins.	PF00023A 16.03 3.893e-09 44-60 PF00023B 14.20 9.182e-09 40-50
1874	PF00023	Ank repeat proteins.	PF00023A 16.03 3.893e-09 72-88 PF00023B 14.20 9.182e-09 68-78
1877	PD01066	PROTEIN ZINC FINGER ZINC-FINGER METAL-BINDING NU.	PD01066 19.43 2.019e-26 51-90
1877	BL00028	Zinc finger, C2H2 type, domain proteins.	BL00028 16.07 6.786e-16 427- 444 BL00028 16.07 1.900e-13 287-304 BL00028 16.07 3.700e- 13 481-498 BL00028 16.07 1.000e-12 315-332 BL00028 16.07 1.000e-12 399-416 BL00028 16.07 3.348e-12 453- 470 BL00028 16.07 4.522e-12 371-388 BL00028 16.07 6.885e- 11 343-360 BL00028 16.07 4.600e-10 509-526
1877	PR00048	C2H2-TYPE ZINC FINGER SIGNATURE	PR00048Å 10.52 8.500e-17 424- 438 PR00048A 10.52 7.000e-14 312-326 PR00048A 10.52 1.643e- 13 396-410 PR00048A 10.52 3.571e-13 478-492 PR00048B 6.02 9.000e-12 300-310 PR00048A 10.52 1.000e-11 506- 520 PR00048A 10.52 5.737e-11 340-354 PR00048A 10.52 1.391e- 10 284-298 PR00048B 6.02 6.063e-10 412-422 PR00048B 6.02 1.474e-09 494-504 PR00048B 6.02 2.895e-09 356- 366
1877	PD00066	PROTEIN ZINC-FINGER METAL-BINDI.	PD00066 13.92 4.600e-14 415- 428 PD00066 13.92 7.000e-14 469-482 PD00066 13.92 5.500e- 13 303-316 PD00066 13.92 4.429e-12 331-344 PD00066 13.92 9.217e-11 497-510 PD00066 13.92 2.038e-10 387- 400 PD00066 13.92 6.400e-09

SEQ ID NO:	Database entry ID	Description	Results*	
			359-372	
1878	PR00830	ENDOPEPTIDASE LA (LON) SERINE PROTEASE (S16) SIGNATURE	PR00830A 8.41 4.927e-13 222- 242	
1878	PR00300	ATP-DEPENDENT CLP PROTEASE ATP- BINDING SUBUNIT SIGNATURE	PR00300A 9.56 1.545e-11 218- 237	
1878	PR00051	BACTERIAL CHROMOSOMAL REPLICATION INITIATOR (DNAA) SIGNATURE	PR00051A 10.68 3.647e-10 215- 236	
1878	PR00819	CBXX/CFQX SUPERFAMILY SIGNATURE	PR00819B 10.83 9.213e-10 217- 233	
1878	BL00674	AAA-protein family proteins.	BL00674B 4.46 9.000e-24 215- 237 BL00674C 22.60 8.448e-20 248-291 BL00674D 23.41 5.140e-18 308-355 BL00674E 15.24 9.217e-16 390-410 BL00674A 16.91 5.304e-09 181- 202	
1878	BL00113	Adenylate kinase proteins.	BL00113A 12.74 8.615e-09 219- 236	
1879	BL00456	Sodium:solute symporter family proteins.	BL00456A 22.59 1.957e-32 35-90 BL00456B 18.94 9.780e-17 111- 141	
1880	BL00456	Sodium:solule symporter family proteins.	BL00456A 22.59 1.957e-32 35-90 BL00456C 24.55 1.225e-31 173- 228 BL00456B 18.94 9.780e-17 111-141	
1884	BL00290	Immunoglobulins and major histocompatibility complex proteins.	BL00290A 20.89 1.818c-11 159- 182	
1885	PR00830	ENDOPEPTIDASE LA (LON) SERINE PROTEASE (S16) SIGNATURE	PR00830A 8.41 5.897e-10 352- 372	
1885	BL00847	MCM family proteins.	BL00847D 15.16 8.568e-25 343- 384 BL00847B 24.76 8.971e-25 194-237 BL00847C 18.79 9.270e- 10 301-335	
1885	PR00449	TRANSFORMING PROTEIN P21 RAS SIGNATURE	PR00449A 13.20 1.931e-09 346- 368	
1885	BL00674	AAA-protein family proteins.	BL00674B 4.46 5.378e-09 345- 367	
1886	PF00651	BTB (also known as BR-C/Ttk) domain proteins.	PF00651 15.00 7.000e-10 50-63	
1886	PR00501	KELCH REPEAT SIGNATURE	PR00501A 8.25 5.295e-09 507- 521	
1886	DM00099	4 kw A55R REDUCTASE TERMINAL DIHYDROPTERIDINE.	DM00099B 14.73 6.625e-09 479- 489	
1887	PD00306	PROTEIN GLYCOPROTEIN PRECURSOR RE.	PD00306A 10.26 6.625e-13 544- 558	
1887	PD01364	MUCIN GLYCOPROTEIN PRECURSOR MEM.	PD01364B 13.94 5.500e-09 544- 560	
1888	PD00306	PROTEIN GLYCOPROTEIN PRECURSOR RE.	PD00306A 10.26 6.625e-13 544- 558	
1888	PD01364	MUCIN GLYCOPROTEIN PRECURSOR MEM.	PD01364B 13.94 5.500e-09 544- 560	
1889	PD00306	PROTEIN GLYCOPROTEIN PRECURSOR RE.	PD00306A 10.26 6.625e-13 544- 558	
1889	PD01364	MUCIN GLYCOPROTEIN PRECURSOR MEM.	PD01364B 13.94 5.500e-09 544- 560	
1890	PF00938	Lipoprotein.	PF00938E 19.50 6.096e-09 272-	

SEQ ID NO:	Database entry ID	Description	Results*
-			307
1891	PF00925	GTP cyclohydrolase II.	PF00925F 13.23 9.850e-09 356- 367
1893	BL00226	Intermediate filaments proteins.	BL00226A 12.77 5.355e-13 139- 154
1895	PF00035	Double-stranded RNA binding motif.	PF00035B 12.08 7.750e-09 273- 287
1896	PF00622	Domain in SPIa and the RYanodine Receptor.	PF00622B 21.00 9.250e-11 170- 192

TABLE 4

SEQ ID	Model	Description	E-value	Score	Repeats	Position
950	UCH-2	Ubiquitin carboxyl-terminal hydrolase family	6.6e-26	99.5	1	825-886
950	UCH-1	Ubiquitin carboxyl-terminal hydrolases famil	2.5e-15	64.4	1	266-297
952	ethand	EF hand	0.0034	24.0	1	322-350
952	Adeno_E 1A	Early E1A protein	8.9	-168.3	1	298-448
953	SH2	SH2 domain	1.5e-16	68.4	1	320-396
954	SH2	SH2 domain	1.5e-16	68.4	ı	347-423
955	RCCI	Regulator of chromosome condensation (RCC1)	1.3e-13	58.6	4	148- 197:200- 249:318- 367:370- 418
958	BRCT	BRCA1 C Terminus (BRCT) domain	7.2	1.2	1	45-130
962	UQ_con	Ubiquitin-conjugating enzyme	5.4e-39	143.0	1	2-117
963	UQ_con	Ubiquitin-conjugating enzyme	1.6e-57	204.5	1	2-132
971	kinesin	Kinesin motor domain	2.2e- 154	526.3	1	47-372
971	WD40	WD domain, G-beta repeat	16-53	191.9	7	1327- 1361:1367- 1402:1432- 1466:1472- 1511:1523- 1557:1564- 1600:1606- 1640
971	filament	Intermediate filament protein	2.6	-195.6	ì	423-805
971	HDV_ag	Hepatitis delta virus delta antigen	6.2	-47.5	1	703-880
971	PFEMP	Plasmodium falciparum erythrocyte membrane p	8.9	-86.8	1	475-585
971	G6PD	Glucose-6-phosphate dehydrogenase, NAD bindi	9.6	-123.8	1	912-1049
971	DUF232	Putative transcriptional regulator	9.7	-30.1	1	616-750
975	Kelch	Kelch motif	5.7e-62	219.3		267- 312:314- 359:361- 406:408- 453
975	BTB	BTB/POZ domain	3.1e-38	140.4	1	23-130
977	kinesin	Kinesin motor domain	9.7e-	520.8	ī	53-353

SEQ ID	Model	Description	E-value	Score	Repeats	Position
000			153		<u> </u>	
977	FHA	FHA domain	0.078	16.9	1	470-534
977	KMP11	Kinetoplastid membrane protein 11	3.5	-3.2]	355-438
977 977	SART-1	SART-1 family L1 transposable element	7.1	-360.1	<u> </u>	325-881
	Transposa se_22		8.7	-180.7	1	322-622
979	Ribosoma 1_L10	Ribosomal protein L10	6	-33.3	1	70-173
980	Aa_trans	Transmembrane amino acid transporter	1.6e-75	264.3	1	69-479
980	oxidored_ ql	NADH-Ubiquinone/plastoquinone	7.6	-169.3	1	63-326
980	xan_ur_pe rmease	Permease family	8.4	-201.3	1	137-471
980	Trp_Tyr_ perm	Tryptophan/tyrosine permease family	9.6	-297.9	I	70-474
982	HYR	HYR domain	2e-35	131.1	2	106- 187:188- 267
982	EGF	EGF-like domain	3.9e-24	93.6	3	742- 773:780- 811:818- 849
982	sushi	Sushi domain (SCR repeat)	0.28	12.5	3	1-38:43- 104:272- 332
982	TNFR_c6	TNFR/NGFR cysteine-rich region	0.74	9.6	1	563-601
982	laminin_E GF	Laminin EGF-like (Domains III and V)	6.6	-12.8	ī	746-791
982	metalthio	Metallothionein	7.6	-11.6	ı	744-804
982	HMG_Co A_synt	Hydroxymethylglutaryl-coenzyme A synthas	8.7	-342.7	1	336-625
986	MHC_II_ alpha	Class II histocompatibility antigen, alp	8.8e-13	55.9	1	37-106
986	ig	Immunoglobulin domain	8e-05	29.5	1	122-186
987	LRR	Leucine Rich Repeat	2.6e-12	54.3	4	68-91:92- 114:115- 137:138- 159
987	UVR	UvrB/uvrC motif	5.3	-1.5	1	453-486
990	UVR	UvrB/uvrC motif	3.8	-0.3	i	552-588
991	CK_II_be ta	Casein kinase II regulatory subunit	4.5e-69	242.9	1	5-124
994	RNA_pol B	RNA polymerase beta subunit	0	1199.4	1	26-1010
994	PHD	PHD-finger	5.9	-17.0	1	1013-1048
995	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	4.9e-05	30.2	1	10-59
995	zf-B_box	B-box zinc finger	0.0022	24.7	1	92-134
996	HLH	Helix-loop-helix DNA-binding domain	2e-07	38.1	1	276-327
997	ras	Ras family	3.3e-12	2.0	i	23-145
998	pkinase	Protein kinase domain	3.1e-08	-16.4	1	1-139
1000	ig	Immunoglobulin domain	2.7e-06	34.4	2	42-95:225- 281
1001	Y_phosph atase	Protein-tyrosine phosphatase	4.2	-86.2	1	180-409
1002	PX	PX domain	5.8e-19	76.4	1	22-138
1002	Peptidase _S21	Assemblin (Peptidase family S21)	8.9	-173.6	i	76-352
1003	Y_phosph	Protein-tyrosine phosphatase	1.1	-79.3	l	98-327

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1004	atase		1	265	ļ. <u>.</u>	
1004	Y_phosph atase	Protein-tyrosine phosphatase	4.2	-86.2	1	180-409
1008	oxidored_ q1	NADH-Ubiquinone/plastoquinone (complex I)	5.2	-165.9	1	64-311
1010	filament	Intermediate filament protein	1.7	-190.5	1	331-647
1010	Tektin	Tektin family	1.8	-228.5	1	192-507
1010	bZIP	bZIP transcription factor	4.4	-3.7	1	253-317
1010	spectrin	Spectrin repeat	5.6	-18.0	1	320-429
1010	SART-1	SART-1 family	8	-362.0	i	54-675
1010	Myosin_t ail	Myosin tail	9.8	-555.1	1	6-734
1013	Defensin_ propep	Defensin propeptide	1.2e-26	102.0	1	45-97
1013	defensins	Mammalian defensin	7.3e-14	59.5	1	110-138
1014	filament	Intermediate filament protein	0.69	-180.5	i	314-579
1014	PolyA_po	Poly A polymerase family	2.5	-64.5	i	348-463
1014	ERM	Ezrin/radixin/moesin family	8.7	-223.3	1	226-487
1014	Transposa	Transposase	9.4	-152.0	1	155-465
ł	se 12	•			-	
1015	zf-C2H2	Zinc finger, C2H2 type	1.2e-55	198.2	13	129- 152:349- 371:379- 401:407- 429:446- 468:474- 496:505- 527:533- 556:562- 585:903-
1015	, 60s_ribos omal	60s Acidic ribosomal protein	0.23	-21.0	1	925:931- 953:959- 981:987- 1010 61-194
1015	TFIIS	Transcription factor S-II (TFIIS)	0.82	2.1	1	446-484
1015	rubredoxi n	Rubredoxin	2.8	-8.3	1	900-943
1015	zf-BED	BED zinc finger	9	-7.0	1	972-1011
1021	SSF	Sodium:solute symporter family	1.7e-05	-65.8	1	5-184
1028	zf-C2H2	Zinc finger, C2H2 type	4.3e-30	113.4	5	100- 122:132- 154:160- 182:188- 210:216- 238
1028	KRAB	KRAB box	7.1e-24	92.8	1	4-44
1028	zf-BED	BED zinc finger	0.63	3.4	1	78-123
1029	fn3	Fibronectin type III domain	1.8e-13	58.2	l	146-231
1029	ig	Immunoglobulin domain	0.0013	25.5	1	275-335
1031	polypreny l_synt	Polyprenyl synthetase	0.013	-82.6	1	119-332
1032	Defensin_ propep	Defensin propeptide	1.2e-26	102.0	1	68-120
1032	defensins	Mammalian defensin	7.3e-14	59.5	1	133-161
1033	MAGE	MAGE family	3.8e-34	126.8	1	1-208

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1034	LRR	Leucine Rich Repeat	2.3e-17	71.1	6	62-84:87-
		-	ĺ			110:111-
				1	j	134:135-
				ļ	1	158:159-
					}	181:186-
						209
1034	LRRCT	Leucine rich repeat C-terminal domain	7.4e-05	29.6	1	221-271
1034	ig	Immunoglobulin domain	0.061	19.9	1	283-343
1034	LRRNT	Leucine rich repeat N-terminal domain	0.19	18.3	1	33-60
1035	CoaE	Dephospho-CoA kinase	3e-93	323.2	1	359-537
1035	Cytidylylt ransf	Cytidylyltransferase	8.3e-06	31.4	1	191-315
1035	SKI	Shikimate kinase	0.64	-65.2	1	356-510
1035	ArgK	ArgK protein	7.5	-212.4	I	341-541
1038	lipase	Lipase	1.1e-12	49.8	i	1-198
1044	homeobox	Homeobox domain	2.6e-30	114.1	1	155-211
1048	SKI	Shikimate kinase	0.49	-63.6	1	6-185
1049	fn3	Fibronectin type III domain	4.7e-78	272.7	5	159-
•						245:257-
	1				Í	343:360-
					ì	459:480-
		•				565:577-
						665
1049	ig	Immunoglobulin domain	2.5e-05	31.1	1	79-137
1050	ig	lmmunoglobulin domain	0.019	21.5	2	1-58:93-
	<u> </u>					142
1051	MHC_I	Class I Histocompatibility antigen, domains	2.1	-83.5	1	24-116
1053	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	0.88	0.8	1	198-232
1057	p450	Cytochrome P450	5.7e-08	-1.4	1	66-377
1060	Ribosoma 1_S21	Ribosomal protein S21	0.5	-7.2	1	753-810
1060	Tropomyo sin	Tropomyosin	9	-120.2	1	208-412
1064	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	0.88	0.8	1	141-175
1065	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	0.88	0.8	i	191-225
1066	aa_perme ases	Amino acid permease	3.2e-06	-173.3	1	46-455
1066	Aa trans	Transmembrane amino acid transporter	0.4	-172.1	1	48-434
1066	Trp_Tyr_	Tryptophan/tyrosine permease family	2.6	-282.5	1	48-392
	perm					
1066	oxidored_ q1	NADH-Ubiquinone/plastoquinone	4.6	-164.9	1	170-421
1066	xan_ur_pe rmease	Permease family	9.7	-202.9	1	60-397
1068	zf-C2I-I2	Zinc finger, C2H2 type	6.8e-	428.3	22	101-
			125			128:169-
						191:197-
						219:225-
						247:253-
						275:281-
						303:309-
						324:330-
						352:358-
						380:386-
						408:414-
						436:442-
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SEQ ID	Model	Description	E-value	Score	Repeats	Position
	†			1 220.0		492:524-
]				ĺ	546:552-
	1			<u> </u>		565:571-
	ļ			ļ	ļ	593:599-
	1				ļ	621:627-
	İ		ì	1		649:655-
						677:683-
				<u> </u>		705:711-
				ŀ		733:739-
						761
1068	KRAB	KRAB box	4.1e-25	96.9	1	4-44
1068	GATA	GATA zinc finger	2.6	-7.8	1	279-325
1068	LIM	LIM domain	4.3	-17.1	1	311-368
1068	zf-BED	BED zinc finger	4.7	-4.4	1	315-353
1068	zf-TRAF	TRAF-type zinc finger	4.9	-6.5	1	163-212
1068	FYVE	FYVE zinc finger	6.7	-24.5	1	245-320
1068	TFIIS	Transcription factor S-II (TFIIS)	7.3	-6.0	1	281-319
1070	C2	C2 domain	1.1e-38	142.0	2	178-
	1					263:319-
						406
1071	ig	Immunoglobulin domain	1.9	12.9	1	19-66
1075	WD40	WD domain, G-beta repeat	1.7e-27	104.8	6	12-53:59-
						96:160-
						194:200-
		İ	İ			236:245-
	}				•	281:287-
1000	7777 40				L <u>-</u>	322
1078	WD40	WD domain, G-beta repeat	2.2e-25	97.8	5	16-52:60-
	ļ				!	96:106-
	1					142:191-
	İ					227:234- 270
1078	FYVE	FYVE zinc finger	2e-22	87.9	1	279-353
1078	DnaJ_CX	DnaJ central domain (4 repeats)	3.1	-45.6	1	304-360
1070	XCXGX	Dias central comain (4 repeats)	3.1	-45.0	•	304-300
	G		1			
1079	PH	PH domain	1.5e-25	98.3	2	120-
1075	1	111 Comani	1.50-25	70.5	-	215:298-
						391
1081	KRAB	KRAB box	6e-21	83.0	1	45-81
1082	Ribosoma	Ribosomal protein L11	1e-64	228.4	1	117-248
	1 L11	Table of the state	1.00.		*	111 210
1084	zf-C2H2	Zinc finger, C2H2 type	6.4e-	627.7	25	109-
			185			131:137-
	l		1			159:165-
	}					187:221-
						243:249-
						271:277-
	1					299:305-
	İ	1				327:333-
	1					355:361-
	1].	Ì			383:389-
						411:445-
	1					467:473-
	1	1				495:501-
	1					523:529-
	1					551:557-
	1					579:585-
	1	1				607:641-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
						663:669-
	ŀ					691:697-
	1	1		l	1	719:753-
						775:781-
	1		ļ]	803:809-
	1		į		ĺ	831:837-
						859:865-
						887:893-
			1	1		915
1084	CBM_1	Fungal cellulose binding domain	2.6	4.4	1	38-66
1084	LIM	LIM domain	3	-15.7	1	783-847
1084	zf-BED	BED zinc finger	5.9	-5.3	2	205-
						244:737- 776
1085	Band_7	SPFH domain / Band 7 family	8.1e-42	152.3	ī	39-214
1087	TPR	TPR Domain	4.5e-16	66.8	2	58-91:92-
						125
1090	WHI	WH1 domain	0.0017	11.6	_1	11-119
1091	zf-DHHC	DHHC zinc finger domain	0.033	-11.5	1	120-158
1094	Calx-beta	Calx-beta domain	0.19	-11.6	1	23-117
1095	zf-C2H2	Zinc finger, C2H2 type	5.4e-82	285.8	12	288-
						311:337-
		*				359:365-
						387:393-
					ĺ	415:421-
						443:449-
						471:477-
	1		1			499:505-
			}			527:533-
			1			555:561-
						583:589-
	ı					611:617-
						639
1095	SCAN	SCAN domain	1.5e-54	194.6	1	46-141
1095	zf-BED	BED zinc finger	3.3	-3.0	2	434-
						472:574-
1005			1.60.01	20.0		612
1097	7tm_2	7 transmembrane receptor (Secretin family)	6.8e-21	82.8	1	325-580
1097	GPS	Latrophilin/CL-1-like GPS domain	9.5e-13	55.8	1	273-323
1097	Srg	C.elegans Srg family integral membrane prote	4.5	-217.5	1	309-565
1099	lectin_c	Lectin C-type domain	0.0011	7.2	1	6-100
1100	PDZ	PDZ domain (Also known as DHR or GLGF)	0.0014	25.3	i	12-91
1100	Tymo_45 kd_70kd	Tymovirus 45/70Kd protein	1.8	-283.9	1	1-398
1101	cadherin	Cadherin domain	8.9e-95	328.3	5	64-
						156:170-
	İ		[265:279-
						381:394-
						485:498-
			('		595
1101	Cadherin_	Cadherin cytoplasmic region	4.7e-80	279.4	1	643-794
	C_term				·	
1103	COesteras	Carboxylesterase	0.98	-265.9	1	31-265
	e	·				
1104	DSPc	Dual specificity phosphatase, catalytic	9.7e-30	112.2	1	133-315

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1100	 	doma	ļ	ļ. <u>. </u>	<u> </u>	ļ <u>.</u>
1105	efhand	EF hand	3.1e-21	84.0	3	124-
	ĺ	j				152:160-
	1		1	Ï		188:208-
1108	zf-C2H2	7: F COUG A	2.5- 60	020.0	 	236
1108	ZI-CZHZ	Zinc finger, C2H2 type	3.5e-68	239.9	10	189-
						212:240-
	Į.					262:268-
						290:296-
			ŀ		l	319:325-
					ļ	347:353-
	1	Į.	ŀ		1	375:382-
					İ	404:909-
					İ	931:937-
						960:966- 988
1108	SET	SET domain	0.0012	-18.9	1	37-175
1108	zf-BED	BED zinc finger	0.1	10.4	2	276-
						320:922-
	1					961
1108	FYVE	FYVE zinc finger	6.8	-24.6	1	262-364
1109	Nucleosid	Na+ dependent nucleoside transporter	2.5e-	635.7	1	198-613
1100	e tra2	TY 0 4 TO 1 TO 1	187	222.2		
1109	TLC ATP-	TLC ATP/ADP transporter ATP synthase A chain	5.6	-382.0	1	95-407
1109	synt_A	A I P Synthase A chain	6.5	-79.5	i	365-503
1110	PHD	PHD-finger	5.2	-16.5	1	77-120
1113	Peptidase	Ulp1 protease family, C-terminal cataly	6.5e-34	126.1	1	254-415
1113	C48	Cipi protease failing, C-terminal cataly	0.50-54	120.1	! •	234-413
1114	ras	Ras family	5.5e-31	116.4	1	54-222
1114	arf	ADP-ribosylation factor family	0.0054	-80.3	i	37-213
1115	SPRY	SPRY domain	7.3e-10	46.2	1	281-419
1115	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	0.00076	26.2	ı	88-134
1116	LRR	Leucine Rich Repeat	2.1e-05	31.4	6	37-64:65-
		-		i	ł	92:93-
	ļ		ŀ			120:121-
	1					142:175-
	•				ļ	198:255-
						278
1117	RasGAP	GTPase-activator protein for Ras-like	6.4e-28	106.2	1	268-440
1116		GTPase	1 2 2 2			
1117	PH	PH domain	0.28	15.7	1	7-78
	C2	C2 domain	1.9	-9.5	1	91-171
1117	bZIP	bZIP transcription factor	9	-6.7	1	997-1054
1118	COX3	Cytochrome c oxidase subunit III	1.7	-228.9	1	77-195
1118	sugar_tr LMWPc	Sugar (and other) transporter Low molecular weight phosphotyrosine	2.2	-179.3	1	32-413
1120	LIVIWEC	protein	9.7e-56	198.6	1	7-138
1122	M	M protein repeat	6.6	13.1	2	148-
	-					168:216-
						236
1123	lectin_c	Lectin C-type domain	4.3e-11	50.3	1	579-646
1123	Tropomyo	Tropomyosin	0.17	-90.1	1	304-500
	sin					
1123	filament	Intermediate filament protein	0.17	-164.6	1	287-537
1123	spectrin	Spectrin repeat	5.8	-18.2	1	422-523
1127	vwa	von Willebrand factor type A domain	4.1e-63	223.1	1	252-450
1127	trypsin	Trypsin	2.1e-43	157.6	1	463-734

SEQ ID	Model	Description	E-value	Score	Repents	Position
1127	sushi	Sushi domain (SCR repeat)	2.4e-24	94.3	3	37-85:86-
	İ					140:147-
						200
1128	Neur_cha n_memb	Neurotransmitter-gated ion-channel tra	le-88	308.2	1	84-334
1128	oxidored_ q1_N	NADH-Ubiquinone oxidoreductase	7	-14.7	1	123-183
1129	C4	C-terminal tandem repeated domain in	1.4e-	507.0	2	477-
		type 4	148			584:585- 699
1129	Collagen	Collagen triple helix repeat (20 copies)	1.9e-60	214.3	7	20-78:84-
						142:143-
					İ	202:205-
						265:266- 325:329-
]					388:405-
						464
1132	filament	Intermediate filament protein	2.1	-193.2	1	90-330
1132	Tropomyo	Tropomyosin	7.7	-119.0	1	151-353
110.	sin		<u> </u>			
1135	zf-C2H2	Zinc finger, C2H2 type	8.3e-26	99.2	5	278-
]					303:312- 339:345-
						369:375-
						399:405-
						429
1136	Ribosoma I_S2	Ribosomal protein S2	1.7e-78	274.2	1	34-198
1137	ATP-	ATP synthase alpha/beta family, beta-	5.2e-26	99.8	l	63-129
	synt_ab_ N	ba				
1139	ATP-	ATP synthase alpha/beta family,	3.1e-06	-33.1	1	71-183
	synt_ab	nucleot				
1139	ATP-	ATP synthase alpha/beta family, beta-	0.015	14.4	1	10-68
	synt_ab_ N	ba				!
1140	ATP-	ATP synthase alpha/beta family, beta-	5.2e-26	99.8	1	63-129
	synt_ab_	ba		,,,,	•	05 125
	N					
1140	ATP- synt_ab	ATP synthase alpha/beta family, nucleot	2.6e-06	-31.8	1	132-261
1141	ank	Ankyrin repeat	6.7e-34	126.0	3	463-
						495:496-
						528:529-
1141	DDCT	PPCA1 C Torminus (PPCT) domain	1 50 15	65.1		561
1141	BRCT	BRCA1 C Terminus (BRCT) domain	1.5e-15	65.1	2	578- 689:705-
						812
1141	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	0.083	9.7	1	86-122
1143	GTP_EFT	Elongation factor Tu GTP binding	0.031	-59.5	Î .	68-140
	U	domain				
1145	RF-1	Peptidyl-tRNA hydrolase domain	3.3e-05	10.5	1	46-159
1146 1148	RF-1 WD40	Peptidyl-tRNA hydrolase domain WD domain, G-beta repeat	6.4	-51.5	1	46-114
1149	Band_41	FERM domain (Band 4.1 family)	6.9e-07 1.1e-77	36.3 271.5	1	44-80
1150	Metallothi	Plant PEC family metallothionein	5	-38.3	1	45-235 90-139
	o_PEC	•				
1153	pkinase	Protein kinase domain	1.7e-90	314.1	1	43-299

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1155	SCP	SCP-like extracellular protein	6.2e-14	56.1	1	28-200
1156	ras	Ras family	1.5e-15	40.0	1	5-98
1159	6PF2K	6-phosphofructo-2-kinase	5.2e- 152	518.4	1	26-249
1159	PGAM	Phosphoglycerate mutase family	6e-100	345.5	1	250-435
1160	zf-C2H2	Zinc finger, C2H2 type	1.3e- 104	361.0	13	223- 245:251- 273:279- 301:307- 329:335- 357:363- 385:391- 413:419- 441:447- 469:475- 497:501- 523:529- 551:557- 579
1160	PHD	PHD-finger	0.55	-7.5	1	448-509
1160	zf-BED	BED zinc finger	1.4	0.3	2	264- 302:542- 580
1160	DnaJ_CX XCXGX G	DnaJ central domain (4 repeats)	2.9	-45.3	1	509-572
1160	LIM	LIM domain	7.7	-19.2	1	477-539
1160	TFIIS	Transcription factor S-II (TFIIS)	7.9	-6.3	i	450-485
1162	Patatin	Patatin-like phospholipase	0.00033	-0.6	1	1-171
1163	pkinase	Protein kinase domain	2.3e-94	326.9	1	53-303
1163	RIO1	RIO1/ZK632.3/MJ0444 family	0.37	-100.2	1	47-245
1164	Oxysterol _BP	Oxysterol-binding protein	3.8e-47	170.0	1	173-571
1166	OATP_C	Organic Anion Transporter Polypeptide (OATP)	9.9e- 195	660.3	1	68-443
1166	OATP_N	Organic Anion Transporter Polypeptide (OATP)	1e-67	238.4	1	520-680
1166	7tm_5	7TM chemoreceptor	6.1	-167.4	1	184-503
1166	sugar_tr	Sugar (and other) transporter	7.8	-195.1	1	48-570
1167	pentaxin	Pentaxin family	2.3e-07	-7.3	1	25-98
1168	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	1.7e-05	31.7	1	537-574
1169	Peptidase _M1	Peptidase family M1	4e-156	532.1	1	69-458
1170	ig	Immunoglobulin domain	0.0016	25.1	1	30-109
1172	ВТВ	BTB/POZ domain	8.7e-33	122.4	1	104-214
1173	F-box	F-box domain	0.0019	24.9	1	16-64
1174	TPR	TPR Domain	4.5	9.3	1	301-334
1175	2OG- FeII_Oxy	20G-Fe(II) oxygenase superfamily	1.6e-06	35.1	1	527-648
1175	TPR	TPR Domain	4.5	9.3	1	301-334
1176	2OG- FeII_Oxy	20G-Fe(II) oxygenase superfamily	1.6e-06	35.1	1	557-678
1177	Na_Ca_E x	Sodium/calcium exchanger protein	1.1e-23	92.1	1	236-381
1179	lactamase B	Metallo-beta-lactamase superfamily	0.059	-4.5	1	13-212
1180	fibrinogen C	Fibrinogen beta and gamma chains, C-term	1.6e-32	121.5	1	207-416

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1181	MIF	Macrophage migration inhibitory factor	7.6e-67	235.5	1	2-115
1100	-	(MIF)				
1182	SSF	Sodium:solute symporter family	1.7e-	792.4	1	69-503
1182	xan ur pe	Permease family	4.3	-193.8	 	142 514
1102	rmease	i cilicase faithly	4.3	-193.6		143-514
1182	PNTB	NAD(P) transhydrogenase beta subunit	5	-389.7	1	33-325
1182	60KD_IM	60Kd inner membrane protein	6.2	-129.6	i i	113-241
	P	oosta milo momorano protom	0.2	125.0	1.	113-241
1182	oxidored	NADH-Ubiquinone/plastoquinone	7.4	-169.1	1	87-298
	q1	The state of the s	'''		-	0, 2,0
1183	Cation_ef	Cation efflux family	2.3e-58	207.3	1	73-311
	flux		1			
1185	AAA	ATPase family associated with various	4e-89	309.5	2	236-
		cel	1			421:500-
						620
1185	HypB_Ur	HypB/UreG nucleotide-binding domain	3.2	-65.8	1	234-337
1105	eG	4	0.5	10.5	·	
1185	ArsA_AT	Anion-transporting ATPase	8.5	-195.7	1 ,	234-482
1186	Pase HCO3_co	HCO3- transporter family	0	1200.6	1	141 1002
1100	transp	ricos- transporter family	١٠	1389.6	1	141-1023
1186	xan_ur_pe	Permease family	0.33	-164.5	1	518-985
1100	rmease	1 Childase failing	0.55	-104.5	1	310-903
1187	homeobox	Homeobox domain	2.4e-16	67.7	l i	51-107
1188	efhand	EF hand	6.7	9.0	1	13-41
1191	GST C	Glutathione S-transferase, C-terminal	0.93	0.3	li i	134-326
		domain				1
1194	PPR	PPR repeat	0.0019	24.9	1	14-48
1195	thiored	Thioredoxin	0.018	-13.7	1	390-497
1197	ENV_pol	ENV polyprotein (coat polyprotein)	1.2e-08	-24.1	1	86-529
	yprotein				_	
1200	UQ_con	Ubiquitin-conjugating enzyme	1.3e-23	91.9	1	60-190
1202	7tm_1	7 transmembrane receptor (rhodopsin	2.1e-23	91.2	1	59-306
1202	7	family)	1.2	164.5	ļ	
1202 1203	7tm_5 7tm_1	7TM chemoreceptor 7 transmembrane receptor (rhodopsin	4.3 5.9e-37	-164.7 136.2	1	37-314
1203	/ · · · · · · · · · · · · · · · · · · ·	family)	3.96-37	130.2	1	59-341
1203	7tm 5	7TM chemoreceptor	2.2	-159.4	1	37-338
1204	SH3	SH3 domain	2.5e-05	31.1	i	257-317
1204	UBA	UBA/TS-N domain	0.00013	28.8	i	36-76
1204	PGAM	Phosphoglycerate mutase family	0.00044	-75.5	i	438-625
1205	heme 1	Heme/Steroid binding domain	0.00053	19.5	i	37-112
1207	transmem	Tetraspanin family	0.29	-69.8	1	11-110
	brane4					
1208	OATP_C	Organic Anion Transporter Polypeptide	1.3e-	464.0	1	148-524
			135			
1208	kazal	Kazal-type serine protease inhibitor d	0.11	4.9	1	555-601
1208	sugar_tr	Sugar (and other) transporter	0.15	-145.7	1	128-626
1208	lig_chan	Ligand-gated ion channel	3.3	-153.6	1	193-524
1208	7tm_1	7 transmembrane receptor	4.2	-115.5	1	177-473
1208	Cytidylylt	Phosphatidate cytidylyltransferase	4.6	-87.5	1	177-268
1215	rans	Thursdohulin time 1	2 20 25	120.4		
1215	thyroglob ulin 1	Thyroglobulin type-1 repeat	3.2e-35	130.4	2	90-
	"""_1					153:216- 281
1215	kazal	Kazal-type serine protease inhibitor	7.5e-09	42.8	1	40-84
1215	efhand	EF hand	0.057	20.0	2	351-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
						379:388-
						416
1216	annexin	Annexin	7e-61	215.7	2	72-
				ļ		139:144-
			22.24	200		211
1217	annexin	Annexin	2.2e-86	300.4	3	44-
						111:116-
				ļ		183:199-
1218		A	+	216.6		267
1210	annexin	Annexin	7e-61	215.7	2	44-
				}	}	111:116-
1219	Armadillo	Armadillo/beta-catenin-like repeat	5.3e-30	113.1	5	183 351-
1219	seg	Armadmo/oeta-catemii-nke repeat	3.36-30	113.1	13	393:40 5 -
	_seg	·				447:448-
					}	498:499-
					}	541:543-
1			Į.		l	585
1219	GA	GA module	8.3	-5.7	1	180-224
1221	p450	Cytochrome P450	le-122	421.1	1	30-483
1222	p450	Cytochrome P450	1.7e-06	-35.8	1	30-328
1223	A2M_N	Alpha-2-macroglobulin family N-	4.3e-12	-71.6	1	1-468
1223	AZM_N	terminal regi	4.36-12	-/1.0	•	1-408
1225	Thymosin	Thymosin beta-4 family	2.3e-16	67.8	1	2-41
1227	WD40	WD domain, G-beta repeat	1.6e-37	138.1	7	115-
1227	11240	W D domain, G-bota repeat	1.00-57	156.1	'	151:165-
						201:207-
			1			244:250-
			1			286:293-
l			1			328:334-
			i l			370:391-
i				'		431
1236	F-box	F-box domain	5e-07	36.8	1	210-258
1236	ÚvrD-	UvrD/REP helicase	0.00011	-157.2	<u>i </u>	441-920
	helicase				•	*** >20
1237	LRR	Leucine Rich Repeat	2.3e-25	97.7	8	42-65:66-
i		-				88:89-
ì	·		1			111:112-
j			1			134:135-
						157:158-
						180:181-
			1		ĺ	203:204-
						227
1238	TPR	TPR Domain	9.6e-54	192.0	10	22-55:56-
ŀ						86:87-
						120:121-
						154:155-
ļ						188:189-
						222:223-
				ļ		255:290-
						323:328-
						361:362-
ļ						395
	11 1	Cadherin domain	0.00011	29.0	2	48-
1241	cadherin	0				
1241	cadherin					151:165-
	cadherin	one of the second				151:165- 254
1241	TTL			117.0	1	254
		Tubulin-tyrosine ligase family Ubiquitin carboxyl-terminal hydrolases	3.6e-31 4.2e-08	117.0 40.4	1	

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1245	zf-UBP	Zn-finger in ubiquitin-hydrolases and other	1.2e-05	32.2	1	62-148
1246	ank	Ankyrin repeat	3.8e-92	319.5	11	12-44:45- 77:79-
	1					111:112-
				1		144:145-
			ł			177:179-
						211:212-
						244:245-
	į					277:278- 310:312-
			ľ	ĺ	ĺ	344:345-
						374
1250	Clq	C1q domain	0.00033	-3.8	1	827-946
1250	filament	Intermediate filament protein	1.3	-187.6	l	360-645
1250	spectrin	Spectrin repeat	1.9	-12.5	i	492-591
1250	TNF	TNF(Tumor Necrosis Factor) family	4.1	-20.5	1	835-946
1250	Apolipopr otein	Apolipoprotein A1/A4/E family	5.7	-113.3	1	200-469
1250	sigma70	Sigma-70 factor	9	-116.2	1	462-650
1252	laminin_ Nterm	Laminin N-terminal (Domain VI)	3.2e-52	186.9	1	1-223
1252	laminin_E	Laminin EGF-like (Domains III and V)	2e-38	141.0	3	225-
	GF					292:295-
						355:358-
1050) mpp	NED (00450	00.00	110.6	ļ	409
1252 1252	NTR Keratin B	NTR/C345C module	7.2e-30	-81.2] 1	479-591
	2	Keratin, high sulfur B2 protein	6.7			318-451
1253	enolase	Enol-ase	0.038	-162.0	1	11-136
1256	НІТ	HIT family	1.5e-55	198.0	1	51-162
1257	ank	Ankyrin repeat	5.9e-24	93.0	4	39-67:68-
						100:101-
						133:134- 164
1258	lectin_c	Lectin C-type domain	1.3e-21	85.2	1	51-181
1258	lectin c	Lectin C-type domain	1.3e-21	85.2	1	51-181
1262	mito_carr	Mitochondrial carrier protein	8.7e-67	235.3	3	7-100:102-
		•				221:224- 319
1263	serpin	Serpin (serine protease inhibitor)	8.7e- 109	374.8	1	87-463
1264	MHC_I	Class I Histocompatibility antigen, domains	1.3e- 141	483.9	1	25-203
1265	MHC_I	Class I Histocompatibility antigen, domains	2.3e- 130	446.5	1	25-203
1266	MHC_I	Class I Histocompatibility antigen, domains	2.7e- 117	403.1	1	22-187
1267	MHC_I	Class I Histocompatibility antigen, domains	1.1e- 115	397.7	1	25-196
1268	MHC_I	Class I Histocompatibility antigen, domains	2.9e- 118	406.3	1	25-196
1268	ig	Immunoglobulin domain	9.5e-08	39.2	1	221-286
1269	MHC_I	Class I Histocompatibility antigen, domains	4.2e- 132	452.3	1	25-204
1271	MHC_I	Class I Histocompatibility antigen, domains	1e-144	494.2	1	25-203
1272	MHC_I	Class I Histocompatibility antigen,	2.8e-95	329.9	1	25-204

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1070	1222	domains				
1273	MHC_I	Class I Histocompatibility antigen, domains	3.3e- 140	479.2	1	25-203
1274	Kelch	Kelch motif	1.4e-91	317.7	6	271-
			1		l	316:318-
	•		Ì			366:368-
i			ŀ			413:415-
ŀ						460:462-
						507:509-
						554
1274	ВТВ	BTB/POZ domain	3.1e-38	140.4	1	23-130
1275	IQ	IQ calmodulin-binding motif	0.0037	23.9	1	394-414
1276	Glycos_tr ansf_2	Glycosyl transferase	2.2e-22	87.8	1	126-308
1276	Ricin_B_I	QXW lectin repeat	0.0045	23.7	2	478-
ļ	ectin				1	518:520-
					<u> </u>	557
1280	ig	Immunoglobulin domain	3.4e-05	30.7	2	62-
						145:174-
						240
1281	UCH-1	Ubiquitin carboxyl-terminal hydrolases famil	1.5e-12	55.1	1	100-131
1285	UBX	UBX domain	2.9e-22	87.4	1	205-284
1286	UBX	UBX domain	2.9e-22	87.4	1	251-330
1287	DnaJ	DnaJ domain	9e-38	138.9	1	8-70
1288	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	7.9e-09	42.8	1	9-57
1288	zf-B_box	B-box zinc finger	1.8e-06	34.9	1	177-217
1288	SPRY	SPRY domain	0.0016	14.8	i	479-605
1288	2f-UBR1	Putative zinc finger in N-recognin	2.2	-18.4	1	180-237
1289	PKD	PKD domain	0	1026.8	16	293-
						372:397-
						483:485-
			!			568:572-
						677:679-
						763:765-
			ļ			846:849-
			Į.			931:933-
i			[[1017:1019-
		'			· ·	1099:1101-
		:				1183:1185-
						1269:1271-
			,			1353:1355-
						1438:1440-
1						1522:1524-
						1612:1614-
			ŀ			ו סצסוו
1289	REJ	REJ domain	2.3e-	978.0	1	1696 1723-2248
1289	REJ	REJ domain	2.3e- 290	978.0	1	1723-2248
1289 1289	REJ PLAT	REJ domain PLAT/LH2 domain		978.0 97.5	1	
1289 1289		PLAT/LH2 domain Latrophilin/CL-1-like GPS domain	290			1723-2248
1289 1289 1289	PLAT GPS lectin_c	PLAT/LH2 domain Latrophilin/CL-1-like GPS domain Lectin C-type domain	290 2.6e-25	97.5	1	1723-2248 2673-2789
1289 1289 1289 1289	PLAT GPS	PLAT/LH2 domain Latrophilin/CL-1-like GPS domain	290 2.6e-25 1.1e-15	97.5 65.5	1	1723-2248 2673-2789 2566-2615
1289 1289 1289 1289 1290	PLAT GPS lectin_c DUF26 CNH	PLAT/LH2 domain Latrophilin/CL-1-like GPS domain Lectin C-type domain Domain of unknown function DUF26 CNH domain	290 2.6e-25 1.1e-15 0.59	97.5 65.5 -23.7	1 1 1	2673-2789 2566-2615 2-87
1289 1289 1289 1289	PLAT GPS lectin_c DUF26 CNH RhoGAP	PLAT/LH2 domain Latrophilin/CL-1-like GPS domain Lectin C-type domain Domain of unknown function DUF26	290 2.6e-25 1.1e-15 0.59 7.8	97.5 65.5 -23.7 -16.5	1 1 1 1	1723-2248 2673-2789 2566-2615 2-87 2220-2262
1289 1289 1289 1289 1290	PLAT GPS lectin_c DUF26 CNH RhoGAP Peptidase	PLAT/LH2 domain Latrophilin/CL-1-like GPS domain Lectin C-type domain Domain of unknown function DUF26 CNH domain	290 2.6e-25 1.1e-15 0.59 7.8 2.7e-24 1.8e-59 8.2e-	97.5 65.5 -23.7 -16.5 94.2	1 1 1 1	2673-2789 2566-2615 2-87 2220-2262 69-375
1289 1289 1289 1289 1290 1292	PLAT GPS lectin_c DUF26 CNH RhoGAP	PLAT/LH2 domain Latrophilin/CL-1-like GPS domain Lectin C-type domain Domain of unknown function DUF26 CNH domain RhoGAP domain	290 2.6e-25 1.1e-15 0.59 7.8 2.7e-24 1.8e-59	97.5 65.5 -23.7 -16.5 94.2 211.0	1 1 1 1 1	1723-2248 2673-2789 2566-2615 2-87 2220-2262 69-375 125-279

SEQ ID	Model	Description	E-value	Score	Repeats	Position
	1					329:347-
						388
1293	hemopexi	Hemopexin	1e-33	125.5	3	486-
	n					530:608-
	ļ					654:656-
1004			 			699
1294	Peptidase M10	Matrixin	8.2e- 110	378.2	1	48-211
1294	fn2	Fibronectin type II domain	3.5e-84	293.1	3	230-
					l	271:288-
]				İ	329:347-
1297	UQ_con	Ubiquitin-conjugating enzyme	3.3e-20	80.6	i	388 400-557
1297	TT ORF2	TT viral ORF2	3.6	-92.9	1	546-667
1297	UQ con	Ubiquitin-conjugating enzyme	3.3e-20	80.6	1	400-557
1297	TT ORF2	TT viral ORF2	3.6	-92.9	1	546-667
1298	ig	Immunoglobulin domain	2.9e-	798.3	21	25-84:119-
1470	. 5		236	770.5	1	177:245-
				ŀ	1	303:339-
					1	397:432-
					}	490:524-
					}	583:618-
				ŀ	i	676:709-
				ļ]	768:801-
						859:894-
					!	954:990-
	ļ					1048:1121-
					4	1179:1217-
					:	1275:1382-
			+			1440:1477-
			1			1535:1569-
			i			1627:1664- 1722:1756-
						1816:1851-
	•					1911:1947-
			.			2005:2040-
						2098
1298	Adeno_E 3 CR1	Adenovirus E3 region protein CR1	0.062	-3.7	1	1212-1288
1299	cNMP_bi	Cyclic nucleotide-binding domain	6.2e-28	106.2	1	363-459
1299	ion_trans	Ion transport protein	8.9e-21	82.5	1	69-265
1299	ATP-	ATP synthase, Delta/Epsilon chain,	6.8	6.0	1	478-525
	synt_DE	long				
1301	RGS	Regulator of G protein signaling domain	1.6e-49	177.9	1	56-172
1302	THF_DH	Tetrahydrofolate	1e-99	344.7	1	60-235
	G_CYH_ C	dehydrogenase/cyclohyd				
1303	gln-synt	Glutamine synthetase	1.3e- 179	610.1	1	1-321
1304	gln-synt	Glutamine synthetase	0.13	-214.4	1	1-95
1305	SCAN	SCAN domain	7.5e-61	215.6	1	42-137
1306	Methyltra nsf_5	MraW methylase family	4.6e-06	-96.4	1	70-205
1307	ion_trans	Ion transport protein	8.3e-18	72.6	1	438-672
1307	ank	Ankyrin repeat	1.9e-06	34.8	2	77-
	L					108:163-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1307	Srg	C.elegans Srg family integral	8.1	-222.4	1	195 418-669
		membrane prot	0	222	•	110-005
1310	Ammoniu m_transp	Ammonium Transporter Family	1.9e-56	200.9	1	25-429
1310	FecCD	FecCD transport family	0.89	-200.6	1	97-331
1311	Kelch	Kelch motif	2.6e-60	213.8	6	311- 359:361- 411:413- 458:460- 505:507- 556:559- 606
1311	BTB	BTB/POZ domain	1.6e-28	108.1	1	23-181
1313	zf-B_box	B-box zinc finger	9.6e-30	112.2	2	92- 133:418- 459
1313	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	1.3e-23	91.8	2	15-59:341- 385
1313	SPRY	SPRY domain	3.2e-23	90.6	1	672-813
1313	PHD	PHD-finger	0.97	-9.8	1	14-62
1313	NB-ARC	NB-ARC domain	9.5	-151.3	1	48-311
1313	zf-UBR1	Putative zinc finger in N-recognin	9.8	-24.7	1	421-470
1314	SRCR	Scavenger receptor cysteine-rich domain	1.7e-25	98.1	1	37-133
1315	adh_short	short chain dehydrogenase	5.8e-33	122.9	1	38-293
1317	ANP EGF	Atrial natriuretic peptide EGF-like domain	1.2e-51	185.0	6	43-150
						547:553- 591:597- 634:640- 675:747- 781:787- 827
1318	ig	Immunoglobulin domain	2.1c-06	34.7	1	170-227
1318	ŤIL	Trypsin Inhibitor like cysteine rich dom	1.9	-6.8	1	741-787
1318	ldl_recept a	Low-density lipoprotein receptor domain	6.6	-8.8	1	551-593
1318	TILa	TILa domain	6.9	-8.5	1	733-792
1321	FKBP	FKBP-type peptidyl-prolyl cis-trans isomeras	5.7e-45	162.8	1	234-336
1322	PX	PX domain	1.1e-25	98.8	3	273-382
1322	SH3	SH3 domain	6.5e-12	53.0	Ī	3-59
1323	газ	Ras family	5.2e-16	45.4	1	35-218
1323	GTP_EFT U	Elongation factor Tu GTP binding domain	0.53	-76.1	1	31-223
1323	MobB	Molybdopterin guanine dinucleotide synthesis	4.8	-45.8	1	36-150
1323	GTP_CD C	Cell division protein	5.7	-217.6	_	36-247
1324	pkinase	Protein kinase domain	4.6e-51	183.1	1	199-527
1325	pkinase	Protein kinase domain	4.6e-51	183.1	1	199-527
1327	Peptidase _C1	Papain family cysteine protease	7.3e- 110	378.4	1	73-349
1328	Peptidase _C1	Papain family cysteine protease	7.3e- 110	378.4	1	114-390
1330	ig	Immunoglobulin domain	4.6e-07	36.9	2	52- 108:145-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
						201
1332	Sec7	Sec7 domain	1.3e-71	251.3	1	345-536
1332	PH	PH domain	0.25	16.2	1	567-676
1332	IQ	IQ calmodulin-binding motif	0.35	17.4	1	13-33
1333	cadherin	Cadherin domain	1.6e-94	327.4	5	68- 159:173- 268:282- 386:399- 490:503- 600
1333	Cadherin_ C_term	Cadherin cytoplasmic region	1.6e-76	267.6	1	648-819
1335	lipocalin	Lipocalin / cytosolic fatty-acid binding pr	7.5e-35	129.2	1	5-133
1336	SH3	SH3 domain	2.4e-10	47.8	1	495-549
1336	PID	Phosphotyrosine interaction domain (PTB/PID)	0.29	-13.3	I	52-181
1336	SAM_PN T	Sterile alpha motif (SAM)/Pointed domain	6	-25.0	1	608-687
1336	SH2	SH2 domain	8.6	-25.5	1	268-347
1338	UCH-2	Ubiquitin carboxyl-terminal hydrolase	1.5e-20	81.7	i	350-411
1338	UCH-1	Ubiquitin carboxyl-terminal hydrolases	1.1e-12	55.5	i i	111-142
1338	TFIIA	Transcription factor IIA, alpha/beta s	1.7	-151.4	1	386-698
1338	Tymo_45 kd_70kd	Tymovirus 45/70Kd protein	3.3	-291.1	1	310-647
1338	MARCKS	MARCKS family	6.8	-95.6	1	573-865
1340	RCCI	Regulator of chromosome condensation (RCCI)	5.6e-10	46.6	6	77- 136:140- 192:195- 245:248- 298:301- 356:359- 406
1342	Peptidase M1	Peptidase family M1	4.6	-194.5	1	159-470
1342	ubiquitin	Ubiquitin family	5.4	-4.4	1	538-616
1345	crystall	Beta/Gamma crystallin	3.3e-38	140.4	2	1-53:61- 144
1345	WD40	WD domain, G-beta repeat	6.7e-09	43.0	1	269-305
1348	AAA	ATPase family associated with various cellul	0.97	-33.9	1	131-307
1349	AAA	ATPase family associated with various cellul	0.97	-33.9	1	131-307
1351	PHD	PHD-finger	6.3e-15	63.0	1	190-237
1351	PHD	PHD-finger	6.3e-15	63.0	1	190-237
1353	CUB	CUB domain	3.3e-13	57.3	1	416-524
1353	sushi	Sushi domain (SCR repeat)	1.5e-05	31.9	1	357-412
1355	SPRY	SPRY domain	3.4e-19	77.2	1	396-519
1355	fn3	Fibronectin type III domain	1e-08	42.4	1	259-345
1355	zf-B_box	B-box zinc finger	8.9e-07	35.9	1	44-86
1356	Patatin	Patatin-like phospholipase	0.59	-42.1	1	10-118
1358	ELM2	ELM2 domain	3.2e-21	84.0	1	195-256
1358	myb_DN A-binding	Myb-like DNA-binding domain	1.1e-09	45.6	1	299-345
1359	Reprolysi n	Reprolysin (M12B) family zinc metallo	1.4e-12	55.3	1	239-457
1359	Pep_M12 B_propep	Reprolysin family propeptide	3.6e-12	53.9	1	90-216

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1359	tsp_1	Thrombospondin type 1 domain	3.4e-07	37.4	5	551-
						601:829-
						884:888-
				j		944:946- 1002:1007-
						1002.1007-
1359	EB	EB module	8.4	-11.7	1	452-531
1363	ank	Ankyrin repeat	6.2e-26	99.6	5	72-
						104:105-
			ì			137:138-
	1			1	1	170:180- 212:222-
	1				•	255
1366	C2	C2 domain	le-75	264.9	2	161-
	ļ					247:293-
10.65	-		1 65	064.0		381
1367	C2	C2 domain	1e-75	264.9	2	161- 247:293-
				İ		381
1368	p450	Cytochrome P450	5e-110	378.9	1	47-502
1370	aa_perme	Amino acid permease	1.3e-08	-108.1	i	49-452
10-0	ases					
1370	Neur_cha n memb	Neurotransmitter-gated ion-channel tr	0.37	-96.5	1	330-585
1370	ion_trans	Ion transport protein	1.4	-2.3	1	288-615
1370	Transp_cy	Permease for cytosine/purines, uracil	1.5	-178.6	 	47-442
	t_pur					
1370	Aa trans	Transmembrane amino acid transporter	1.9	-190.3	1	67-409
1370	DUF140	Domain of unknown function DUF140	2.6	-156.6	1	109-312
1370	Nucleosid e tran	Nucleoside transporter	3.2	-154.9	1	357-658
1370	xan_ur_pe	Permease family	4.1	-193.2	1	56-429
<u> </u>	rmease	·				
1370	DUF6	Integral membrane protein DUF6	7.1	-22.4	1	536-671
1370	NADHdh	NADH dehydrogenase	7.3	-213.9	1	212-616
1370	SNF	Sodium:neurotransmitter symporter fam	9.2	-458.6	1	117-450
1372	kinesin	Kinesin motor domain	2.1e-	463.2	1	53-341
			135			
1372	Translin	Translin family	10	-82.4	1	315-462
1373	LRR	Leucine Rich Repeat	1.9e-27	104.6	7	60-83:84-
						107:108- 131:132-
				į		155:157-
						180:181-
						204:205-
						225
1373	IPPCT	Immunoglobulin domain	1.2e-05	32.1	1	310-368
1373 1373	LRRCT fn3	Leucine rich repeat C-terminal domain Fibronectin type III domain	4.7e-05 7.1e-05	30.2 29.6	1	249-294 425-505
1373	LRRNT	Leucine rich repeat N-terminal domain	0.83	13.7	1 .	27-58
1374	kinesin	Kinesin motor domain	9.5e-14	1.2	1	1-131
1375	zf-DHHC	DHHC zinc finger domain	9.1e-34	125.6	1	101-165
1376	EGF	EGF-like domain	3.2e-45	163.6	9	49-84:90-
						126:132-
						167:177-
						213:217- 252:286-
L	Ļ		J	<u> </u>	Ļ <u>.</u>	232.200-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
	1					321:327-
						362:368-
						401:407-
	L					442
1376	CUB	CUB domain	9.6c-18	72.4	1	809-918
1376	TIL	Trypsin Inhibitor like cysteine rich domai	0.73	-2.0	1	84-132
1376	Keratin_B 2	Keratin, high sulfur B2 protein	0.9	-67.6	1	111-242
1376	granulin	Granulin	1.1	-12.1	1	285-323
1376	metalthio	Metallothionein	5.9	-10.3	1	363-431
1376	DUF141	Domain of unknown function DUF141	6.7	-15.1	1	799-922
1380	ion_trans	Ion transport protein	0.066	16.8	1	153-318
1380	ABC2_m embrane	ABC-2 type transporter	6.1	-130.1	Ì	145-334
1380	oxidored_ q1	NADH-Ubiquinone/plastoquinone	6.2	-167.5	1	46-317
1380	OATP_C	Organic Anion Transporter Polypeptide	9.5	-236.4	1	75-316
1381	pkinase	Protein kinase domain	9.7e-80	278.3	1	205-486
1384	ig	Immunoglobulin domain	0.00034	27.4	1	65-142
1388	LRR	Leucine Rich Repeat	4.9e-16	66.7	4	20-43:44-
						67:68-
	L					91:92-115
1388	LRRCT	Leucine rich repeat C-terminal domain	7.4e-09	42.9	1	125-175
1388	GPS	Latrophilin/CL-1-like GPS domain	0.0041	20.8	ì	641-693
1388	HRM	Hormone receptor domain	0.0076	16.3	1	285-354
1388	7tm_2	7 transmembrane receptor (Secretin family)	0.01	-96.0	1	704-981
1388	ig	Immunoglobulin domain	3.3	10.9	1	196-265
1389	MACPF	MAC/Perforin domain	0.016	-71.3	1	30-313
1391	HD	HD domain	8.3e-07	36.1	1	32-127
1392	efhand	EF hand	1.5e-05	31.8	2	1-25:33-61
1394	MORN	MORN repeat	1.1e-32	122.1	7	39-61:62-
						85:86- 108:109- 131:132- 154:155- 177:178- 200
1395	MORN	MORN repeat	3.1e-31	117.2	6	39-61:62- 85:86- 108:143- 165:166- 188:189- 211
1396	EPH_lbd	Ephrin receptor ligand binding domain	4.6e- 135	462.1	1	31-204
1396	pkinase	Protein kinase domain	8e-74	258.7	1	635-892
1396	fn3	Fibronectin type III domain	2.5e-31	117.5	2	329- 425:437- 524
1396	SAM	SAM domain (Sterile alpha motif)	2.5e-21	84.3	1	928-992
1396	PHD	PHD-finger	3.7	-15.1	1	259-296
1397	Exo_endo _phos	Endonuclease/Exonuclease/phosphatase fa	0.34	-11.2	1	357-643
1397	sugar_tr	Sugar (and other) transporter	8.8	-196.7	1	7-343
1397	Exo_endo	Endonuclease/Exonuclease/phosphatase	0.34	-11.2	i	357-643
	phos	fa				

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1397	sugar tr	Sugar (and other) transporter	8.8	-196.7	1	7-343
1401	homeobox	Homeobox domain	0.097	-3.3	1	78-126
1403	Tropomyo sin	Tropomyosin	2.4	-110.1	1	341-547
1403	filament	Intermediate filament protein	2.6	-195.5	1	412-760
1403	UvrD- helicase	UvrD/REP helicase	8	-249.4	1	153-720
1403	Myosin_t ail	Myosin tail	8.9	-551.2	1	20-777
1404	Č1q	C1q domain	0.00033	-3.8	1	827-946
1404	filament	Intermediate filament protein	1.3	-187.6	1	360-645
1404	spectrin	Spectrin repeat	1.9	-12.5	ì	492-591
1404	TNF	TNF(Tumor Necrosis Factor) family	4.1	-20.5	1	835-946
1404	Apolipopr otein	Apolipoprotein A1/A4/E family	5.7	-113.3	1	200-469
1404	sigma70	Sigma-70 factor	9	-116.2	1	462-650
1405	Cache	Cache domain	6.5e-12	53.0	2	402- 481:721- 813
1406	ASC	Amiloride-sensitive sodium channel	2e-125	430.1	1	159-579
1407	pkinase	Protein kinase domain	0.22	-115.5	1	5-217
1408	PBP	Phosphatidylethanolamine-binding protein	1.8e-71	250.9	1	1-167
1410	abhydrola se	alpha/beta hydrolase fold	1.4	-12.1	1	75-318
1412	rrm	RNA recognition motif.	2.7e-12	54.3	3	259- 329:360- 433:477- 550
1414	DEP	Domain found in Dishevelled, Egl-10, and Ple	3.5e-32	120.3	2	173- 247:275- 349
1414	PH	PH domain	1e-09	45.7	i	29-144
1414	PDZ	PDZ domain (Also known as DHR or GLGF)	0.013	18.7	2	375- 456:460- 531
1418	SCAN	SCAN domain	2.6e-51	183.9	1	36-131
1418	zf-C2H2	Zinc finger, C2H2 type	4.6e-25	96.7	5	406- 428:435- 457:463- 485:522- 545:553- 575
1418	KRAB	KRAB box	0.023	14.2	1	220-260
1418	zf-BED	BED zinc finger	10	-7.4	1	438-486
1419	EGF	EGF-like domain	5.1e-28	106.5	9	13-40:45- 72:77- 104:109- 136:141- 168:173- 200:205- 232:237- 264:269- 296
1419	Keratin_B 2	Keratin, high sulfur B2 protein	1.2	-69.3	1	100-251
1419	Gamma- thionin	Gamma-thionins family	4.8	-8.7	1	124-163

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1421	Ferric_red	Ferric reductase like transmembrane	2.8e-64	227.0	l	63-564
1 1 2 1	uct	com	2.00-04	227.0	'	03-304
1421	NAD_bin ding	Oxidoreductase NAD-binding domain	4	-34.1	1	381-551
1421	FAD_bin	Oxidoreductase FAD-binding domain	5	-28.7	<u> </u>	245-335
	ding_6		-	-20.7	L.	243-333
1421	rubredoxi n	Rubredoxin	6.9	-11.0	1	409-436
1422	zf-C2H2	Zinc finger, C2H2 type	5e-12	53.4	2	1057- 1079:1085- 1109
1422	zf-TRAF	TRAF-type zinc finger	5	-6.6	1	1056-1101
1422	Tymo_45 kd_70kd	Tymovirus 45/70Kd protein	6	-298.2	1	343-700
1422	zf-BED	BED zinc finger	7.1	-6.0	1	1070-1110
1423	7tm_5	7TM chemoreceptor	3.3	-162.5	1	181-451
1423	Cytidylylt rans	Phosphatidate cytidylyltransferase	5	-87.9	i	21-135
1424	CAP_GL Y	CAP-Gly domain	7.2e-46	165.8	2	196- 238:398- 440
1424	ank	Ankyrin repeat	9.2e-09	42.5	3	1-40:42- 76:79-111
1425	PAP2	PAP2 superfamily	1.5e-08	41.8	1	166-313
1426	SCAN	SCAN domain	6.2e-70	245.7]	33-128
1426	zf-C2H2	Zinc finger, C2H2 type	1.5e-44	161.4	6	239- 261:267- 289:295- 317:323- 345:351- 373:379- 401
1426	zf-BED	BED zinc finger	0.67	3.1	1	280-318
1426	DCI	DC1 domain	5.1	3.6	1	295-338
1426	zf-C4	Zinc finger, C4 type (two domains)	9.7	-55.1	i	323-364
1427	xan_ur_pe rmease	Permease family	7.1	-199.5	1	104-453
1428	LRR .	Leucine Rich Repeat	2.3e-16	67.8	4	80- 103:104- 127:128- 151:152- 175
1428	LRRCT	Leucine rich repeat C-terminal domain	0.00079	26.2	1	185-234
1431	PH	PH domain	7.6e-15	62.8	1	19-117
1432	PH	PH domain	6.4e-21	82.9	i	55-153
1434	filament	Intermediate filament protein	2.9	-196.8	1	128-488
1434 1434	K-box OspD	K-box region Borrelia outer surface protein D	5.3	-38.4 -69.3	1	277-357
1434	Apolipopr otein	Apolipoprotein A1/A4/E family	5.7	-113.3	l l	151-409 56-318
1437	RhoGAP	RhoGAP domain	5.7e-57	202.7	1	1152-1305
1437	PH	PH domain	3.5e-18	73.8	1	922-1030
1437	PDZ	PDZ domain (Also known as DHR or GLGF)	0.0013	25.4	1	28-128
1441	annexin	Annexin	4.1e- 109	375.9	4	18-79:80- 135:151- 219:227- 294

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1443	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	0.0075	18.7	1	1256-1307
1443	PHD	PHD-finger	0.18	-2.9	1	1255-1310
1443	WD40	WD domain, G-beta repeat	2.9	13.4	1	189-225
1443	K tetra	K+ channel tetramerisation domain	3.5	-39.5	1	830-916
1443	Clathrin	Region in Clathrin and VPS	8.9	-25.2	1	976-1129
1444	RIIa	Regulatory subunit of type II PKA R-s	0.31	10.8	1	17-54
1444	Alpha_ad aptin_C	Alpha adaptin AP2, C-terminal domain	7	-63.6	1	91-155
1445	TK	Thymidine kinase	3.4e-98	339.6	1	61-231
1446	GDPD	Glycerophosphoryl diester phosphodies	5.4e-08	40.0	i	154-403
1446	Glycos_tr ansf 4	Glycosyl transferase	4.9	-87.4	Ī	22-145
1447	adh short	short chain dehydrogenase	0.98	-91.8	1	2-196
1448	K-box	K-box region	0.64	-28.5	1	61-126
1449	PHD	PHD-finger	0.01	8.4	ī	1-42
1452	rrm	RNA recognition motif.	4.5e-19	76.8	i	77-148
1454	rvt	Reverse transcriptase	3.6e-34	126.9	1	385-570
1454	Gag_MA	Matrix protein (MA), p15	0.0018	-21.0	i	10-131
1454	Gag p30	Gag P30 core shell protein	0.54	-80.3	i	211-390
1458	COX5A	Cytochrome c oxidase subunit Va	1.2e-55	198.3	i	42-131
1459	Guanylate kin	Guanylate kinase	6.2e-38	139.4	i	515-624
1459	PDZ	PDZ domain (Also known as DHR or GLGF)	6.8e-11	49.6	1	256-335
1459	SH3	SH3 domain	0.027	5.9	1	348-415
1459	L27	L27 domain	0.049	20.1	1	186-238
1459	Caulimo_ mov	Caulimovirus movement protein	7.1	-185.3	1	420-673
1459	A_deamin ase	Adenosine/AMP deaminase	7.8	-138.5	ı	64-421
1461	hexokinas e	Hexokinase	4.3e- 284	957.2	1	53-499
1463	Occludin	Occludin/ELL family	6.3	-249.1	1	33-394
1464	trypsin	Trypsin	4.7e-72	252.8	1	30-232
1466	DDHD	DDHD domain	8.6e- 117	401.4	1	613-860
1466	DUF203	Domain of unknown function	8.7	-69.8	1	254-460
1467	Glycos_tr ansf 1	Glycosyl transferases group 1	1.8e-27	104.7	1	286-470
1468	EMP24_ GP25L	emp24/gp25L/p24 family	3.5e-70	246.6	1	5-183
1469	EMP24_ GP25L	emp24/gp25L/p24 family	3.5e-81	283.1	1	5-208
1470	14-3-3	14-3-3 protein	2.2e- 142	486.5	1	5-249
1471	filament	Intermediate filament protein	0.53	-177.6	1	2-249
1471	spectrin	Spectrin repeat	7.1	-19.1	1	34-130
1472	MtN3 slv	MtN3/saliva family	5.4	-31.6	1	35-139
1472	ATP- synt_A	ATP synthase A chain	7.4	-80.2	1	91-214
1474	zf-CCCH	Zinc finger C-x8-C-x5-C-x3-H type	4.3e-07	37.0	2	531- 557:663- 688
1474			<u> </u>	11.3	2	205-
1475	zf-C2H2	Zinc finger, C2H2 type SpoU rRNA Methylase family	6.3 2.1e-27	104.5	1	229:618- 642 145-301

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1476	filament	Intermediate filament protein	2.4	-194.5	1	427-720
1476	Tropomyo sin	Tropomyosin	3	-111.7	i	539-761
1476	spectrin	Spectrin repeat	3.3	-15.3	1	427-526
1476	K-box	K-box region	7.1	-41.3	1	248-335
1476	Borrelia_ orfA	Borrelia ORF-A	9.8	-102.9	1	440-736
1477	MMR_HS R1	GTPase of unknown function	1.5e-90	314.2	1	178-521
1477	DUF258	Protein of unknown function, DUF258	9.6	-84.6	1	343-465
1479	RNase_P H	3' exoribonuclease family	1.2e-96	334.5	2	48- 251:358- 581
1479	S1	S1 RNA binding domain	0.057	19.9	1	675-750
1479	KH- domain	KH domain	0.35	9.3	1	609-651
1482	COLFI	Fibrillar collagen C-terminal domain	5.8e-29	109.6	1	97-277
1482	Collagen	Collagen triple helix repeat (20 copies)	8.5e-05	29.4	1	2-61
1483	COLFI	Fibrillar collagen C-terminal domain	1.6e-35	131.4	i	110-293
1483	Collagen	Collagen triple helix repeat (20 copies)	8.5e-05	29.4	1	2-61
1484	CH	Calponin homology (CH) domain	5.6e-14	59.9	1	4-104
1485	MoaE	MoaE protein	7	-55.7	1	21-96
1486	zf-C2H2	Zinc finger, C2H2 type	6.8	10.9	2	871- 896:904- 929
1487	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	2.6	-3.3	I	336-377
1489	FH2	Formin Homology 2 Domain	0.00017	-49.7	1	3-329
1490	AAA	ATPase family associated with various	4e-45	163.3	1	370-565
1490	SKI	Shikimate kinase	0.068	-52.5	1	369-506
1490	Viral_heli case1	Viral (Superfamily 1) RNA helicase	1.8	-67.0	1	371-563
1490	LON	ATP-dependent protease La (LON) domai	3.6	-69.4	1	12-220
1491	Tropomod ulin	Tropomodulin	4.1e-78	272.9	1	34-402
1491	WH2	WH2 motif	0.83	16.1	1	534-553
1491	pkinase	Protein kinase domain	5.9	-136.0	1	334-538
1494	xan_ur_pe rmease	Permease family	2.9	-189.3	1	72-377
1494	Na_sulph _symp	Sodium:sulfate symporter transmembran	5.3	-356.1	1	212-541
1494	Glycos_tr ansf_4	Glycosyl transferase	7.3	-90.3	1	374-528
1494	STE3	Pheromone A receptor	7.5	-203.9	1	314-603
1494	DUF221	Domain of unknown function DUF221	9.6	-234.2	i	196-576
1494	7tm_5	7TM chemoreceptor	9.7	-171.0	1	122-365
1494	oxidored_ q1	NADH-Ubiquinone/plastoquinone	9.7	-171.5	1	42-264
1495	lectin_c	Lectin C-type domain	4.7e-34	126.6	1	53-164
1496	Cytochro me_B561	Cytochrome b561	2.1e- 113	390.2	1	1-240
1498	Hydrolase	haloacid dehalogenase-like hydrolase	0.0045	16.9	1	31-443
1498	Cation_A TPase_C	Cation transporting ATPase, C-terminu	0.26	-25.8	1	535-706
1498	oxidored_ q4	NADH-ubiquinone/plastoquinone oxidore	4.4	-34.0	1	631-705
1499	DEAD	DEAD/DEAH box helicase	3e-64	226.9	1	139-356
1499	helicase_	Helicase conserved C-terminal domain	4.1e-32	120.1	1	447-518

SEQ ID	Model	Description	E-value	Score	Repeats	Position
	C '					
1502	C2	C2 domain	1.3e-51	184.9	2	28- 109:184- 264
1503	ank	Ankyrin repeat	1.6e-31	118.2	6	743- 775:776- 807:808- 840:842- 874:875- 915:916- 948
1504	ank	Ankyrin repeat	1.4e- 167	570.1	16	57-89:90- 122:123- 155:210- 242:243- 275:276- 308:363- 398:399- 431:432- 464:525- 557:558- 590:591- 623:644- 675:678- 710:711- 743:744- 776
1504	SAM	SAM domain (Sterile alpha motif)	1.3e-09	45.4	1	872-934
1504	PÄRP	Poly(ADP-ribose) polymerase catalytic domai	0.022	-59.4	i	954-1161
1504	3Beta_HS D	3-beta hydroxysteroid dehydrogenase/isomera	1.3	-204.0	1	208-536
1505	PHD	PHD-finger	0.26	-4.5	1	132-191
1505	DC1	DC1 domain	2.8	5.8	1	131-159
1506	PHD	PHD-finger	0.26	-4.5	1	156-215
1506	DCI	DC1 domain	2.8	5.8	1	155-183
1507	zf-C3HC4	Zinc finger, C3HC4 type (RTNG finger)	3.6e-08	40.6	1	224-261
1507	LON	ATP-dependent protease La (LON) domain	0.007	-21.6	1	305-510
1507	TPR	TPR Domain	1.6	13.6	2	41-74:75- 108
1508	ig	Immunoglobulin domain	1e-76	268.3	12	78- 131:171- 245:276- 330:364- 432:463- 516:552- 623:654- 705:740- 797:828- 880:914- 981:1012- 1067:1101- 1169
1512	FYVE	FYVE zinc finger	3.2e-14	60.7	I	152-261
1512	НурА	Hydrogenase expression/synthesis hypA	0.81	-51.2	1	97-194
1512	RNA_PO L_M_15K	RNA polymerases M/15 Kd subunit	2.1	-1.7	1	160-212

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1616	D C-leelin	G-loolin	1000		-	10111000
1516 1518	Gelsolin V1R	Gelsolin repeat Vomeronasal organ pheromone	0.76	5.9	1	1011-1052
		receptor family	2.3e-11	41.1		73-338
1518	7tm_1	7 transmembrane receptor (rhodopsin family)	0.044	-69.7	1	62-325
1520	SPRY	SPRY domain	5.2e-24	93.2	1	95-230
1521	Tropomod ulin	Tropomodulin	0.065	-128.4	1	214-495
1521	LRR	Leucine Rich Repeat	1.8	15.0	4	348- 371:376- 403:404- 427:432- 456
1522	zf-CCHC	Zinc knuckle	0.051	15.9	1	13-30
1523	Skpl	Skp1 family	6.3e-10	46.4	1	17-80
1524	RhoGAP	RhoGAP domain	4.2e-31	116.8	1	125-285
1525	UQ_con	Ubiquitin-conjugating enzyme	1.4e-39	144.9	1	1-126
1527	LRR	Leucine Rich Repeat	1.6e-35	131.4	9	86- 109:110- 133:134- 157:158- 181:182- 205:206- 229:230- 251:254- 277:279- 302
1527	LRRNT	Leucine rich repeat N-terminal domain	6.6e-06	33.1	1	33-60
1527	LRRCT	Leucine rich repeat C-terminal domain	0.048	17.9	I	312-362
1528	K_tetra	K+ channel tetramerisation domain	0.0016	-5.0	ī	117-220
1529	MORN	MORN repeat	1.8e-24	94.7	7	1049- 1071:1072- 1094:1100- 1122:1123- 1143:1151- 1171:1198- 1220:1221- 1244
1529	VPS9	Vacuolar sorting protein 9 (VPS9)	8.3e-06	32.7	1	1551-1656
1529	RCC1	Regulator of chromosome condensation (RCCI)	8.5e-06	32.7	3	168- 216:527- 574:579- 625
1529	RhoGEF	RhoGEF domain	0.097	-40.8	1	694-884
1529	PH	PH domain	0.23	16.5	1	901-1005
1530	profilin	Profilin	1.4e-63	224.6	1	3-135
1531	profilin	Profilin	7.4e-48	172.4	1	3-119
1532	60s_ribos omal	60s Acidic ribosomal protein	3.3	-34.2	ĵ	39-153
1533	jmjC	jmjC domain	0.01	-0.1	1	1-50
1533	PHD	PHD-finger	0.042	2.9	2	508- 549:609- 655
1534	kinesin	Kinesin motor domain	3.5e-64	226.7	1	1-177
1536	aminotran _3	Aminotransferase class-III	7.8e-42	152.4	1	1-373

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1536	LEA	Late embryogenesis abundant protein	5.6	-4.7	1	109-177
.1539	Hydrolase	haloacid dehalogenase-like hydrolase	0.0064	15.3	1	264-685
1539	Cation_A TPase_C	Cation transporting ATPase, C-terminu	4.6	-46.1	1	784-916
1541	TPR	TPR Domain	0.00036	27.3	2	135- 168:204- 237
1542	PCMT	Protein-L-isoaspartate(D-aspartate) O-methyl	1.2e-11	21.8	1	9-224
1543	Peptidase _C54	Peptidase family C54	3.1e-58	206.9	1	76-364
1545	homeobox	Homeobox domain	4.8e-26	100.0	1	233-286
1546	zf-C2H2	Zinc finger, C2H2 type	3.1e-85	296.6	14	14-36:42- 64:70- 92:99- 122:128- 150:163- 185:199- 221:227- 249:255- 277:283- 305:311- 333:339- 361:367- 389:395- 417
1546	TFIIS	Transcription factor S-II (TFIIS)	1.9	-1.0	1	202-237
1546	zf-BED	BED zinc finger	2.3	-1.7	1	324-362
1546	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	4.6	-5.4	1	341-372
1547	Ribosoma 1_S5	Ribosomal protein S5	3.4c-09	44.0	1	222-352
1548	ĨQ	IQ calmodulin-binding motif	1e-24	95.5	5	748- 768:771- 791:794- 814:935- 955:958- 978
1552	DUF6	Integral membrane protein DUF6	0.14	6.6	1	150-279
1552	SBF	Sodium Bile acid symporter family	9.2	-75.2	1	143-321
1553	zf-C2H2	Zinc finger, C2H2 type	2.1e-05	31.4	3	80- 105:107- 130:144- 169
1554	F-box	F-box domain	7.7e-05	29.5	1	4-52
1555	Ran_BP1	RanBP1 domain	1.1e-88	308.0	ì	37-161
1555	WH1	WHI domain	6.8	-26.8	1	45-159
1556	actin	Actin	8.4e- 151	514.4	1	1-372
1557	GTP_EFT U	Elongation factor Tu GTP binding doma	9.7	-93.3	1	91-355
1557	Defensin_ propep	Defensin propeptide	9.8	-11.4	1	1-50
1559	GTP_EFT U	Elongation factor Tu GTP binding domain	1.5e-11	51.8	1	125-348
1559	GTP_EFT U D3	Elongation factor Tu C-terminal domain	8.1e-07	33.1	1	451-541
1559	GTP_EFT U_D2	Elongation factor Tu domain 2	1e-06	35.8	I	363-446

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1559	ATP-bind	Conserved hypothetical ATP binding protei	8.5	-132.9	1	126-312
1559	dynamin	Dynamin family	8.7	-85.0	1	110-278
1567	carb_anhy drase	Eukaryotic-type carbonic anhydrase	4.6e- 170	578.4	1	5-241
1568	An_perox idase	Animal haem peroxidase	8.1e- 164	557.6	1	144-683
1568	DUF37	Domain of unknown function DUF37	6.5	-36.0	_1	462-518
1569	DAO	FAD dependent oxidoreductase	0.055	-90.8	1	49-381
1571	СН	Calponin homology (CH) domain	1.4e-25	98.4	1	126-233
1573	NUDIX	MutT-like domain	5.5e-12	53.3	I	96-221
1574	HECT	HECT-domain (ubiquitin-transferase)	4.3e-16	66.9	1	281-573
1575	ig	Immunoglobulin domain	2.8	11.5	1	122-187
1577	7tm_1	7 transmembrane receptor	3.4	-113.2	1	42-246
1577	Bac_rhod opsin	Bacteriorhodopsin	9.6	-139.9	1	111-313
1578	fn3	Fibronectin type III domain	0.21	11.2	1	121-211
1579	Acetyltran sf	Acetyltransferase (GNAT) family	2.4e-14	61.1	1	548-624
1580	Acetyltran sf	Acetyltransferase (GNAT) family	2.4e-14	61.1	1	653-729
1580	Acetyltran sf	Acetyltransferase (GNAT) family	2.4e-14	61.1	1	653-729
1582	GIDA	Glucose inhibited division protein A	0.0017	-414.5	1	68-196
1583	efhand	EF hand	1.2	14.9	1	23-51
1585	Dynein_h eavy	Dynein heavy chain	3.6e-18	-92.1	1	1-363
1587	Sm	Sm protein	2e-07	38.1	1	43-124
1588	PDZ	PDZ domain (Also known as DHR or GLGF)	3.1e-15	64.1	1	3-83
1590	MAPI_L C3	Microtubule associated protein 1A/1B, light	0.04	-35.1	1	99-187
1591	Syntaxin	Syntaxin	2.3e-09	38.1	1	1-266
1591	synaptobr evin	Synaptobrevin	5.8	-14.5	i	184-272
1591	DUF148	Domain of unknown function DUF148	7.7	-38.1	1	17-129
1592	laminin_E GF	Laminin EGF-like (Domains III and V)	1.2	-4.2	Î	153-196
1592	EGF	EGF-like domain	2.4	10.9	3	140- 177:284- 313:351- 380
1592	metalthio	Metallothionein	4.8	-9.3	1	288-348
1593	DnaJ	DnaJ domain	3.4e-40	146.9	1	3-69
1594	HMG_bo	HMG (high mobility group) box	2.6e-27	104.1	1	346-414
1598	HMG_bo	HMG (high mobility group) box	3.4e-30	113.8	1	45-113
1600	CUB	CUB domain	6.9	-43.0	1	224-313
1601	DUF6	Integral membrane protein DUF6	1.1e-12	55.6	2	113- 238:266- 390
1601	sugar_tr	Sugar (and other) transporter	5.7	-191.4	1	55-405
1601	oxidored_ q1	NADH-Ubiquinone/plastoquinone (complex I)	6	-167.3	i	131-389
1602	FF	FF domain	2.3e-33	124.3	5	272- 321:339- 388:406-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
						461:486-
						541:622-
1600	417117	*******	10.00	22.2	<u> </u>	673
1602	ww	WW domain	4.3e-20	80.2	2	88-
	i					117:129-
1603	FF	FF domain	2.3e-33	124.3	5	158 235-
1005	1 **	1 domain	2.36-33	124.3	'	284:302-
						351:369-
			1			424:449-
					ļ	504:585-
						636
1603	ww	WW domain	1.1e-09	45.6	1	92-121
1605	AT_hook	AT hook motif	1.9	11.9	1	360-372
1606	aminotran	Aminotransferase class-V	1.3e-	437.3	1	37-377
·	_5		127			
1607	aminotran 5	Aminotransferase class-V	3.5e-94	326.3	1	37-331
1611	Granin	Granin (chromogranin or secretogranin)	6.6	-185.2	1	125-609
1612	PHD	PHD-finger	0.59	-7.8	1	551-610
1613	Branch	Core-2/I-Branching enzyme	1e-77	271.6	1	46-313
1614	mbt	mbt repeat	3.2e-	349.7	4	78-
			101			153:192-
	1					265:304-
						381:412-
1614	SAM_PN	Sterile alpha motif (SAM)/Pointed	0.0021	60	1	486
1014	T SAM_PN	domain	0.0021	6.9	1	809-888
1614	SAM	SAM domain (Sterile alpha motif)	0.023	20.6	1	822-885
1615	UPF0103	Protein of unknown function DUF52	4.7e-64	226.2	1	9-270
1616	C2	C2 domain	6.8e-36	132.7	2	606-
						695:755-
						842
1617	C2	C2 domain	7.8e-35	129.2	2	87-
						176:236-
1610	00	CO. 1.	0.16			323
1618 1619	C2	C2 domain 7 transmembrane receptor (rhodopsin	0.16 3.9e-20	2.4 80.3	1	265-346
1019	7tm_1	family)	3.96-20	80.3	1	217-427
1620	K tetra	K+ channel tetramerisation domain	1.1e-25	98.7	1	3-101
1620	BTB	BTB/POZ domain	9	-22.4	i	21-104
1623	cyclin	Cyclin, N-terminal domain	0.057	-1.4	i	46-149
1624	zf-C2H2	Zinc finger, C2H2 type	8.9e-19	75.8	4	34-57:71-
		•				93:112-
		,				134:143-
	<u> </u>					165
1627	PDZ	PDZ domain (Also known as DHR or GLGF)	4.2e-16	66.9	1	66-149
1628	MttA_Hcf	mttA/Hcf106 family	2.5	-14.8	1	54-107
	106					
1628	Tropomyo sin	Tropomyosin	4	-114.1	1	74-272
1628	Syntaxin	Syntaxin	5.7	-103.5	1	82-402
1628	PI3_PI4_	Phosphatidylinositol 3- and 4-kinase	8.5	-118.0	1	125-342
- 020	kinase		3.5	110.0	•	123-346
1628	HlyD	HlyD family secretion protein	9.4	-64.2	1	129-400
1628	UPF0089	Uncharacterised protein family	10	-132.7	1	150-338
1629	rrm	RNA recognition motif.	1.7e-47	171.2	2	72-
,,	····	· · · · · · · · · · · · · · · · · · ·				

SEQ ID	Model	Description	E-value	Score	Repeats	Position
		, and the second		[142:156-
	<u> </u>					226
1632	Ribosoma l_L10	Ribosomal protein L10	4.2	-31.6	1	70-173
1632	Ribosoma I_L10	Ribosomal protein L10	4.2	-31.6	1	70-173
1635	death	Death domain	1.5	2.0	1	261-348
1636	death	Death domain	1.5	2.0	1	73-160
1637	Gelsolin	Gelsolin repeat	4.1e-92	319.4	6	27-76:148- 188:265- 307:398- 451:523- 564:626- 668
1639	TBC	TBC domain	2e-08	15.3	1	98-293
1640	TBC	TBC domain	2e-07	1.3	1	98-297
1641	homeobox	Homeobox domain	0.0097	7.0	i	83-135
1646	transmem brane4	Tetraspanin family	1.6e-75	264.3	1	18-264
1652	LacY_sy mp	LacY proton/sugar symporter	4.9	-335.5	1	66-299
1652	oxidored_ q1	NADH-Ubiquinone/plastoquinone (complex I)	7.6	-169.3	1	53-279
1653	Colipase_ C	Colipase, C-terminal domain	4.3e-24	93.5	1	21-65
1654	SH2	SH2 domain	0.0091	3.5	1	1-83
1658	SUII	Translation initiation factor SUI1	4.4e-46	166.5	1	50-149
1661	jmjC	jmjC domain	0.00052	13.9	1	308-415
1663	SH3	SH3 domain	0.011	9.5	1	332-388
1664	UBA	UBA/TS-N domain	6.7e-06	33.0	1	194-233
1664	TUDOR	Tudor domain	0.2	-0.7	1	506-627
1665	Ribosoma I_S21	Ribosomal protein S21	0.0039	11.7	1	10-62
1666	transmem brane4	Tetraspanin family	2.2e-71	250.6	1	23-264
1669	RuBisCO _small	Ribulose bisphosphate carboxylase, smal	2.8	-52.1	1	354-430
1671	LRR	Leucine Rich Repeat	2e-50	180.9	12	29-47:48- 71:72- 95:96- 118:119- 142:143- 166:167- 189:190- 213:214- 235:236- 259:260- 283:284- 307
1671	7tm_1	7 transmembrane receptor	0.0032	-43.2	1	439-688
1671	Cytidylylt rans	Phosphatidate cytidylyltransferase	7.1	-89.9	1	520-617
1671	oxidored_	NADH-Ubiquinone/plastoquinone	9.7	-171.5	1	475-685
1671	MerC	MerC mercury resistance protein	9.8	-87.5]	534-632
1672	UCH-2	Ubiquitin carboxyl-terminal hydrolase family	4e-28	106.9	l	292-364
1672	UCH-1	Ubiquitin carboxyl-terminal hydrolases	1.9e-14	61.4	1	35-66

SEQ ID	Model	Description	E-value	Score	Repeats	Position				
1.000		famil								
1673	F-box	F-box domain	0.00071	26.3	1	87-134				
1674	Lamp	Lysosome-associated membrane glycoprotein	5.7	-191.1	1	351-653				
1675	FGGY	FGGY family of carbohydrate kinases, N-termi	2.7e-45	163.9	1	20-282				
1675	FGGY_C	FGGY family of carbohydrate kinases, C-termi	5.5e-23	89.8	1	285-491				
1676	Keratin_B 2	Keratin, high sulfur B2 protein	7.4	-81.9	1	24-201				
1678	S_100	S-100/ICaBP type calcium binding domain	8.3	-9.6	1	909-941				
1680	pyr_redox	Pyridine nucleotide-disulphide oxidoreducta	7.4e-24	92.7	1	12-369				
1681	WD40	WD domain, G-beta repeat	59.1	6	305- 343:352- 389:395- 432:440- 476:487- 524:583- 621					
1683	Ribosoma 1_L44	Ribosomal protein L44								
1686	WD40	WD domain, G-beta repeat	8.9e-14	59.2	2	8-43:50-86				
1688	FliE	Flagellar hook-basal body complex protein Fl	5.1	-27.5	1	673-763				
1690	dCMP_cy t_deam	Cytidine and deoxycytidylate deaminase	2e-13	58.0	1	12-100				
1691	G-gamma	GGL domain	5.1	-8.6	1	712-760				
1692	cpn60_TC P1	TCP-1/cpn60 chaperonin family	0.012	-260.5	1	32-187				
1693	Glycopho rin_A	Glycophorin A	4.4	-43.1	1	16-149				
1696	zf-C2H2	Zinc finger, C2H2 type	4.5e-15	63.5	6	92- 115:120- 143:174- 198:210- 233:329- 353:363- 386				
1698	LRR	Leucine Rich Repeat	0.44	17.0	4	37-58:59- 80:81- 102:103- 125				
1699	VHS	VHS domain	9.5e-60	211.9	1	5-146				
1700	rrm	RNA recognition motif.	3.6e-23	90.4	3	128- 203:332- 402:413- 480				
1701	ank	Ankyrin repeat	3.8e- 101	349.4	12	12-44:45- 77:79- 111:112- 144:145- 177:179- 211:212- 244:245- 277:278- 310:312-				

SEQ ID	Model	Description	E-value	Score	Repeats	Position
	1					344:345-
						374:375-
	<u> </u>					407
1701	URO-D	Uroporphyrinogen decarboxylase	7.8	-229.7	1	79-354
		(URO-D)				
1702	pkinase	Protein kinase domain	0.00012	-68.0	1	31-278
1702	HEAT	HEAT repeat	1.2	15.6	2	342-
	1				1	380:499-
1505	 , -		0.0.11			537
1705	cyclin	Cyclin, N-terminal domain	3.8e-11	50.5	5	157-279
1708	WD40	WD domain, G-beta repeat	1.5e-11	51.8)	278-
					1	313:371-
	ł			1		407:413-
					Ì	447:493-
						529:535- 569
1709	SH2	SH2 domain	0.002	10.0	1	287-364
1710	abhydrola	alpha/beta hydrolase fold	2.2e-20	81.2	1	124-355
1710	se	alpharoeta flydrofase fold	2.26-20	01.2	1	124-355
1710	abhydrola	Phospholipase/Carboxylesterase	1.2	-84.9	1	179-359
1710	se 2	i nosphonpaso Carboxyresterase	1.2	-04.9	1 *	179-339
1711	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	0.002	23.7	1	280-320
1711	PHD	PHD-finger	1.9	-12.4	li -	282-323
1712	WD40	WD domain, G-beta repeat	3.2e-18	74.0	5	67-
****	""	W D domain, o dom repeat	3.20-10	/ 7.0	١	101:123-
						157:164-
					ļ	199:209-
			ľ	ĺ	İ	246:253-
					1	290
1714	Acyltransf	Acyltransferase	0.0011	14.0	1	83-217
1710	erase		10.10	20.7	ļ	205 455
1719	helicase_ C	Helicase conserved C-terminal domain	1.2e-19	78.7	1	397-475
1719	DEAD	DEAD/DEAH box helicase	4.6e-07	10.4	1	2-210
1719	IPT	Isopentenyl transferase	7.9	-160.7	1	17-172
1720	Na_Ca_E	Sodium/calcium exchanger protein	8e-76	265.3	2	109-
1720	x	Godicini/calotant exchanger protein	00-70	205.5	*	249:471-
	^			1		616
1720	DUF205	Domain of unknown function DUF	5.3	-112.7	1	85-253
1720	Fumarate	Fumarate reductase subunit D	8.4	-49.5	i	518-620
	red D			.,	-	1
1721	vwa	von Willebrand factor type A domain	9.6c-29	108.9	1	34-205
1721	fn3	Fibronectin type III domain	3e-15	64.1	2	212-
		· ·				287:332-
						413
1724	pkinase	Protein kinase domain	1.6e-06	-41.3	1	40-359
1725	BRCT	BRCA1 C Terminus (BRCT) domain	1e-15	65.6	3	3-93:642-
]]	730:753-
			<u> </u>			833
1727	BRCT	BRCA1 C Terminus (BRCT) domain	7.2	1.2	1	45-130
1728	rrm	RNA recognition motif.	1.1e-05	32.4	2	545-
			1			612:880-
	ļ <u>.</u>					942
1728	zf-CCCH	Zinc finger C-x8-C-x5-C-x3-H type	0.012	22.2	1	285-311
1728	PWI	PWI domain	0.047	-0.6	1	6-78
1730	PX	PX domain	2.5e-31	117.5	1	94-211
1731	PMP22_C	PMP-22/EMP/MP20/Claudin family	1.5e-56	201.3	ì	1-157
L	laudin		<u> </u>	L	<u> </u>	

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1733	homeobox	Homeobox domain	0.00037	21.6	I	268-339
1733	Vac Fusi	Chordopoxvirus fusion protein	5.2	-21.5	1	286-364
	on			1	-	
1733	CUT	CUT domain	8.5	-38.0	1	159-240
1734	homeobox	Homeobox domain	0.00037	21.6	1	268-339
1734	Vac_Fusi	Chordopoxvirus fusion protein	5.2	-21.5	1	286-364
	on					
1734	CUT	CUT domain	8.5	-38.0	1	159-240
1738	efhand	EF hand	1.5e-16	68.4	2	40-68:76-
			ļ <u></u>			104
1742	trypsin	Trypsin	6.5	-55.6	1	33-255
1743	Exonuclea	Exonuclease	1.2e-36	135.2	ì	39-213
1745	se Smr	Smr domain	0.0029	13.0	1	1504 1670
1745	RyR	RyR domain	1.5	-29.0	1	1594-1672 1312-1403
1745	L27	L27 domain	3.6	5.1	1	1573-1626
1746	Smr	Smr domain	0.0029	13.0	1	1611-1689
1746	RyR	RyR domain	1.5	-29.0	1	1312-1403
1746	L27	L27 domain	3.6	5.1	1	1590-1643
1746	Smg4 UP	Smg-4/UPF3 family	9.7	-74.5	<u> </u>	1379-1518
	F3	July West Stammy	- "	, ,		1075 1010
1747	mito_carr	Mitochondrial carrier protein	1.3e-81	284.5	3	1-90:98-
	Ι - ,	•				198:200-
			<u> </u>		ļ	288
1748	OSCP	ATP synthase delta (OSCP) subunit	8.4	-94.4	1	67-213
1749	Oxysterol	Oxysterol-binding protein	3.4e-78	273.2	1	488-875
	_BP					
1749	PH	PH domain	2.2e-09	44.6	1	52-146
1750	lactamase	Metallo-beta-lactamase superfamily	4.1	-28.9	l	1-153
1751	Bipoxygen	Lipoxygenase	9.5e-	454.4	1	106 702
1/31	ase	Lipoxygenase	133	454.4	1	126-703
1751	PLAT	PLAT/LH2 domain	1.6e-33	124.8	1	2-116
1753	Rho_GDI	RHO protein GDP dissociation	3.2e-	389.5	1	1-187
1	140_021	inhibitor	113	307.3	•	1-10,
1756	GRAM	GRAM domain	7.5e-17	69.4	1	110-177
1757	homeobox	Homeobox domain	3.6e-29	110.3	1	21-77
1758	lipocalin	Lipocalin / cytosolic fatty-acid binding	1.1e-24	95.4	1	38-168
		pr	L			
1759	ig	İmmunoglobulin domain	3.1e-13	57.4	2	35-
						112:160-
1961		NA PARTITION AND ADDRESS OF THE PARTITION ADDRESS OF THE PARTITION AND ADDRESS OF THE PARTITION AND ADDRESS OF THE PARTITION AND ADD	0.000	100 =		234
1761	oxidored_	NADH-Ubiquinone/plastoquinone	0.078	-128.7	1	16-259
1761	q1 DUF250	(complex I) Domain of unknown function, DUF250	0.45	-85.1	1	162-337
1761	DUF6	Integral membrane protein DUF6	2.5	-85.1 -14.8	1	192-337
1761	secY	eubacterial secY protein	7.2	-246.6	1	36-243
1761	FecCD	FecCD transport family	9.8	-221.2	1	120-328
1762	Keratin B	Keratin, high sulfur B2 protein	3.3e-07	32.9	2	11-
1,02	2	120 min might contact Da protoni	3.30-07	32.7	-	113:114-
	-					204
1763	sugar_tr	Sugar (and other) transporter	0.018	-119.2	1	43-449
1763	oxidored_	NADH-Ubiquinone/plastoquinone	4.7	-165.1	1	146-442
	ql	(complex I)				
1765	VPS9	Vacuolar sorting protein 9 (VPS9)	4.5e-33	123.3	1	380-484
		domain				
1765	RA	Ras association (RalGDS/AF-6)	0.73	-5.9	1	518-607
L	L	domain	<u> </u>	L		

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1766	SSF	Sodium:solute symporter family	5.9e-	697.6	1	106-535
			206			
1766	oxidored_	NADH-Ubiquinone/plastoquinone	4.8	-165.2	1	216-521
	qi	(complex I)				
1766	MIP	Major intrinsic protein	5.8	-121.9	1	112-364
1766	DsbD	Cytochrome C biogenesis protein	8.6	-97.3	1	195-425
1767	Dontidaga	ransmemb Peptidase family M3	1.2.	600.0	 	-
1/0/	Peptidase M3	Peptidase family M3	1.3e- 203	689.8	1	251-701
1768	RasGAP	GTPase-activator protein for Ras-like	1.3e-26	101.9	1	449-621
1768	PH	PH domain	0.012	22.2	 	112-236
1768	C2	C2 domain	2.6	-10.9	1	249-332
1768	Tymo_45	Tymovirus 45/70Kd protein	4.2	-293.9	li	561-979
.,,,	kd 70kd	Tymovilus 457701ca protom	7.2	-275.7	,	301-979
1768	RNA pol	DNA-dependent RNA polymerase	5.1	-234.7	i	381-1225
1768	PHD	PHD-finger	6.9	-17.6	1	214-273
1770	rrm	RNA recognition motif.	0.48	5.6	2	238-
						323:352-
					İ	422
1772	zf-C2H2	Zinc finger, C2H2 type	1.6e-87	304.2	13	49-71:197-
			1			219:225-
			1		;	247:253-
	1				ł	275:281-
					l	303:309-
				Ì	1	331:337-
			1			359:365-
			1			387:393-
	1		1			415:421-
	ļ					443:449-
						471:477-
						499:505-
					ļ	527
1772	zf-BED	BED zinc finger	8.9	-6.9	1	490-528
1773	ATP-	ATP synthase subunit C	5.4e-08	40.0	1	62-127
	synt_C					
1774	zf-B_box	B-box zinc finger	7.2e-14	59.5	1	90-131
1774	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	1.6e-10	48.4	1	15-58
1774	PHD	PHD-finger	1.1	-10.3	1	14-61
1774	zf-AN1	AN1-like Zinc finger	1.4	-3.2	1	15-53
1774	zf-UBR1	Putative zinc finger in N-recognin	7.6	-23.6	1	93-146
1775	FH2	Formin Homology 2 Domain	5.4e-50	179.5	1	21-455
1775	WH2	WH2 motif	0.0058	23.3	1	441-456
1777	PHD	PHD-finger	8.7	-18.6	1	493-522
1779	Branch	Core-2/I-Branching enzyme	3.9e-05	-52.8	1	175-516
1780	TFIIS	Transcription factor S-II (TFIIS)	3.9	-3.7	1	295-344
1781	SH3	SH3 domain	1.3e-13	58.6	1	454-508
1782	filament	Intermediate filament protein	3.9	-200.0	1	134-406
1783	SET	SET domain	2e-53	190.9	1	3878-4006
1783	PHD	PHD-finger	4.7e-28	106.6	3	20-71:72-
						118:147-
						200
1783	HMG_bo	HMG (high mobility group) box	0.0047	12.3	1	710-773
	×					
1783	DC1	DC1 domain	8.5	1.7	3	19-50:69-
						98:146-176
1784	zf-DHHC	DHHC zinc finger domain	2.4e-25	97.7	1	90-154
1785	zf-C2H2	Zinc finger, C2H2 type	9.3e-14	59.1	4	18-40:64-
	1		i			86:92-

SEQ ID	Model Description		E-value	Score	Repeats	Position
						115:178-
]				<u> </u>	200
•1788	ion_trans	Ion transport protein	8.3e-18	72.6	1	438-672
1788	ank	Ankyrin repeat	1.9e-06	34.8	2	77-
						108:163-
1500				000.4	-	195
1788	Srg	C.elegans Srg family integral membrane prot	8.1	-222.4	1	418-669
1791	ubiquitin	Ubiquitin family	0.0036	24.0	1	124-195
1792	Gag p10	Retroviral GAG p10 protein	4e-23	90.2	i	1-89
1798	Ribosoma	Ribosomal protein \$12	0.003	-14.2	l i	7-66
.,,,	I_S12	Tribodomai protom 512	0.005	•	•	1 7-00
1799	efhand	EF hand	1.1e-07	39.0	3	281-
						309:318-
						346:353-
						381
1799	Acyltransf	Acyltransferase	0.0001	26.8	1	18-203
1001	erase	G: G GOVIO		076.5	1.0	160
1801	zf-C2H2	Zinc finger, C2H2 type	3.2e-79	276.6	12	160-
					1	182:188- 210:216-
						238:244-
						266:272-
İ					[294:300-
	1			1		322:355-
	1					377:431-
	:			1		453:459-
			- 1	Į.		481:487-
						509:515-
			ł			537:543-
1801	LIM	LIM domain	4.7	-17.4	1	565 433-487
1802	lectin_c	Lectin C-type domain	1.4e-25	98.4	i	143-250
1802	lectin_c	Lectin C-type domain	1,4e-25	98.4	li i	143-250
1804	efhand	EF hand	2.5e-08	41.1	2	16-44:56-
	}		1			82
1806	LRR	Leucine Rich Repeat	1.5e-07	38.5	5	130-
						151:152-
						173:174-
	l					195:196-
			į			217:221-
1807	COX3	Cytochrome c oxidase subunit III	3.5	-233.2	1	243 51-219
1807	CbiM	CbiM	9.2	-93.3	1	114-249
1807	oxidored	NADH-ubiquinone oxidoreductase	9.8	-59.5	1	89-169
	q5_N	chain 4	1.5			", ", ",
1808	Sulfotrans	Sulfotransferase protein	6.6	-108.5	ì	39-282
	fer	•				
1814	Metalloph	Calcineurin-like phosphoesterase	0.23	14.3	1	36-241
	os					
1815	rrm	RNA recognition motif.	0.67	4.1	1	201-269
1816	filament	Intermediate filament protein	1.5	-188.9	1	1-253
1817	MAGE	MAGE family	4.2e-17	70.3	2	14-
						613:655-
	Atrophin-	Atrophin-1 family	9.5	-684.8	1	867 4-783
1217			1 7.7	~004.0	1 4	T"/03
1817	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				

SEQ ID	Model	Description	E-value	Score	Repeats	Position
1010	ulin				ļ	
1819	Hydrolase	haloacid dehalogenase-like hydrolase	3.4e-21	83.8	1	28-282
1820	Fe_hyd_l g_C	Iron only hydrogenase large subunit, C-te	1.3e-92	321.1	.1	204-516
1820	Fe_hyd_S SU	Iron hydrogenase small subunit	8.3	-13.1	1	529-576
1821	filament	Intermediate filament protein	1e-143	490.8	1	55-366
1822	Keratin_B 2	Keratin, high sulfur B2 protein	0.082	-51.3	1	12-174
1824	metalthio	Metallothionein	5.7e-17	69.8	1	48-108
1824	AFP	Insect antifreeze protein	2.6	14.5	1	61-72
1825	C2	C2 domain	4.7e-53	189.7	2	373- 462:528- 617
1825	RPH3A_e ffector	Rabphilin-3A effector domain	0.035	-127.1	1	1-237
1825	zf-MIZ	MIZ zinc finger	0.4	-10.5	1	80-111
1825	PHD	PHD-finger	0.97	-9.7	1	62-108
1825	LIM	LIM domain	2.2	-14.6	1	80-128
1825	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	3.1	-4.0	ì	63-105
1828	efhand	EF hand	8.4e-08	39.4	3	106- 134:142- 170:407- 435
1829	60s_ribos omal	60s Acidic ribosomal protein	7.4	-38.2	1	163-291
1831	Tektin	Tektin family	1.6	-227.3	1	1-150
1833	EGF	EGF-like domain	1.1e-32	122.0	5	26-54:57- 85:92- 124:156- 187:194- 226
1833	laminin_E GF	Laminin EGF-like (Domains III and V)	1.6	-5.9	l	29-63
1833	Bowman- Birk_leg	Bowman-Birk serine protease inhibitor	4.8	-16.7	1	37-85
1833	metalthio	Metallothionein	5.5	-10.1	1	59-117
1834	7tm_1	7 transmembrane receptor (rhodopsin family)	4.8e-05	-0.8	i ·	31-273
1834	7tm_2	7 transmembrane receptor (Secretin family)	5.5	-151.6	1	9-248
1835	rrm	RNA recognition motif.	0.05	15.7	1	75-141
1835	Met_10	Met-10+ like-protein	0.065	-100.4	1	333-583
1835	UPF0020	Putative RNA methylase family UPF0020	0.073	-53.8	1	410-566
1835	PCMT	Protein-L-isoaspartate(D-aspartate) O-	0.2	-114.1	1	391-543
1835	Methyltra nsf_4	Putative methyltransferase	2.1	-82.0	1	424-566
1835	notch	Notch (DSL) domain	6.1	-10.5	1	233-271
1836	Kelch	Kelch motif	3e-33	123.9	4	242- 288:290- 331:333- 378:380- 435
1836	ВТВ	BTB/POZ domain	2.3	-15.2	1	1-129
1837	tsp_1	Thrombospondin type 1 domain	0.0014	23.3	5	139- 196:203- 256:257-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
						313:320-
						370:374-
1027	ED	FD	C A	10.5	ļ	432
1837 1838	EB adh zinc	EB module Zinc-binding dehydrogenase	6.4 7.3e-55	-10.5 195.7	1	330-399
1838	Lipase_G	Lipase/Acylhydrolase with GDSL-like	7.3e-33 5.5	-20.4	1	44-369
	DSL	motif	3.3	-20.4	L¹	103-189
1839	pkinase	Protein kinase domain	2.4e-05	-58.0	1	81-333
1841	zf-C2H2	Zinc finger, C2H2 type	4.4e-30	113.4	7	141-
					}	163:169-
	•					191:197-
					}	219:225-
					ļ	247:350-
					1	372:378- 400:406-
			4		ł	434
1841	KRAB	KRAB box	5.1e-23	89.9	1	44-84
1841	TFIIS	Transcription factor S-II (TFIIS)	2.4	-1.9	i	144-179
1841	Lentiviral	Lentiviral Tat protein	4.9	-23.0	1	35-125
	Tat .					
1841	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	7.2	-7.1	1	352-411
1841	rubredoxi	Rubredoxin	7.4	-11.1	1	403-433
	n				<u> </u>	
1842	E2F_TDP	Transcription factor E2F/dimerisation partne	1.5	-95.1	1	18-229
1843	V_ATPas e_sub_a	V-type ATPase 116kDa subunit family	0	1258.7	1	26-831
1843	UCR_14k D	Ubiquinol-cytochrome C reductase compl	3.2	-40.4	1	6-112
1843	FliP	FliP family	4.8	-148.9	1	533-661
1843	PsbH	Photosystem II 10 kDa phosphoprotein	7.1	5.1	1	751-803
1844	aa_perme ases	Amino acid permease	5.6e-08	-125.3	1	28-529
1844	Aa_trans	Transmembrane amino acid transporter pro	0.71	-178.9	1	30-408
1844	BPD_tran sp_2	Branched-chain amino acid transport	3.3	-116.9	1	175-440
1844	MVIN	Virulence factor MVIN	3.5	-240.9	<u> </u>	87-515
1844	FecCD	FecCD transport family	5.3	-216.0	1	311-521
1844	ion trans	Ion transport protein	6.2	-11.7	l i	288-495
1844	7tm 5	7TM chemoreceptor	7.1	-168.6	i	238-498
1848	sugar_tr	Sugar (and other) transporter	0.0072	-107.9	l	12-407
1848	xan_ur_pe rmease	Permease family	5.6	-196.7	Ï	38-359
1848	FecCD	FecCD transport family	6.3	-217.4	1	56-287
1848	Nucleosid	Nucleoside transporter	8.1	-162.4	i	82-365
	e_tran					
1848	PUCC	PUCC protein	9.8	-283.2	1	51-403
1849	Filamin	Filamin/ABP280 repeat	2.3e-20	81.1	1	396-494
1849	zf-B_box	B-box zinc finger	9.3e-11	49.2	2	130- 176:186- 227
1849	zf-C3HC4	Zinc finger, C3HC4 type (RING finger)	0.0016	24.4	1	29-62
1853	ank	Ankyrin repeat	1.1e-98	341.3	10	485-
						517:518-
						550:551-
						583:584- 616:617-
	L	L	اـــا		L	010:01/-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
						650:651-
					1	683:684-
	i					716:717-
	ł					749:750-
					1	780:782-
					ļ	814
1853	pkinase	Protein kinase domain	1.6e-50	181.3	1	22-286
1854	ras	Ras family	1.4e-13	17.8	1	5-194
1855	Acyltransf erase	Acyltransferase	3e-34	127.2	1	92-289
1856	wap	WAP-type (Whey Acidic Protein)	0.0025	18.7	1	31-72
1050	Wap	'four-disulfi	0.0023	10.7	! 	31-72
1857	arf	ADP-ribosylation factor family	2.5e-11	24.6	1	7-193
1857	GTP_EFT	Elongation factor Tu GTP binding	1.6	-82.5	i	19-198
1	υ	domain		02.5	•	1.5 .50
1858	zf-C2H2	Zinc finger, C2H2 type	2.1e-09	44.7	5	82-
İ					ł	104:110-
	}	•			1	132:138-
						161:364-
						386:392-
1050	DUD	L DUD C	<u> </u>			416
1858	PHD	PHD-finger	7.7	-18.1	1	365-400
1859	zf-C2H2	Zinc finger, C2H2 type	7.2e-20	79.4	4	119-
ł					l	141:147-
ŀ						169:175- 198:214-
						237
1860	ВТВ	BTB/POZ domain	1.7e-29	111.4	1	22-126
1860	zf-C2H2	Zinc finger, C2H2 type	5.1e-14	60.0	3	373-
				00.0	*	395:401-
						423:429-
						452
1860	K_tetra	K+ channel tetramerisation domain	0.44	-30.2	1	34-124
1860	zf-BED	BED zinc finger	8.9	-6.9	1	363-396
1861	SNF2_N	SNF2 and others N-terminal domain	2.1e-72	254.0	1	137-473
1861	helicase_ C	Helicase conserved C-terminal domain	1.4e-24	95.1	1	559-632
1861	DEAD	DEAD/DEAH box helicase	0.26	-59.6	1	124-337
1861	SEC-C	SEC-C motif	0.43	13.8	1	426-446
1862	ras	Ras family	2.4e-69	243.8	1	19-217
1862	arf	ADP-ribosylation factor family	4.1e-05	-53.5	1	1-182
1864	rrm	RNA recognition motif.	0.053	15.4	1	129-191
1867	T-box	T-box	4.3e-09	29.9	1	1-92
1870	F-box	F-box domain	1.8	15.0	1	124-171
1871	PH	PH domain	1.1e-13	58.9	1	170-273
1872	isodh	Isocitrate/isopropylmalate dehydrogenase	1.4e-	423.9	1	10-383
1873	ank	Ankyrin repeat	123 1.8e-08	41.5	2	39-71:72-
''''	unc	1 mayim repeat	1.00-00	+1.J	4	104
1874	ank	Ankyrin repeat	1.8e-08	41.5	2	67-99:100-
					-	132
1875	PAP2	PAP2 superfamily	0.0034	13.0	1	1-107
1876	DUF51	Protein of unknown function DUF51	5.7e-13	52.5	1	107-261
1877	zf-C2H2	Zinc finger, C2H2 type	1.5e-72	254.5	9	285-
						307:313-
						335:341-
]			363:369-
L						391:397-

SEQ ID	Model	Description	E-value	Score	Repeats	Position
						419:425-
						447:451-
	1			}		473:479-
						501:507-
10						529
1877	KRAB	KRAB box	2.7e-21	84.2	1	49-89
1877	zf-BED	BED zinc finger	0.74	2.7	1	344-392
1877	TFIIS	Transcription factor S-II (TFIIS)	1.5	-0.0	1	369-407
1877	GATA	GATA zinc finger	2.1	-7.1	1	477-524
1877	LIM	LIM domain	2.5	-15.1	1	371-435
1877	E6	Early Protein (E6)	5.7	-66.7	1	315-402
1878	AAA	ATPase family associated with various	1.3e-62	221.4	1	217-409
1878	Sigma54_	Sigma-54 interaction domain	4.6	-165.4	1	184-365
	activat				i .	1
1879	SSF	Sodium:solute symporter family	4.8e-	578.3	1	58-460
1990	COE	Godin C 1	170	/	<u> </u>	
1880	SSF	Sodium:solute symporter family	1.3e- 198	673.2	1	58-487
1001		D- 11-1- C-11	1			
1881	perilipin	Perilipin family Aminotransferase class I and II	12-369			
1882	aminotran 1 2	Aminotransferase class I and II	7.5e-07	25.0	1	165-515
1883	DSPc	Dual specificity phosphatase, catalytic	2.5e-30	114.2	1	54-199
1.000		doma	2.50-50	114.2	,	1 34-199
1884	ig	Immunoglobulin domain	7.2e-14	59.5	2	34-
	-8		1120 11	33.3	_	111:155-
						229
1885	MCM	MCM2/3/5 family	4.6e-12	-67.3	1	106-391
1886	Kelch	Kelch motif	1.8e-63	224.3	6	262-
}			1.00		•	306:309-
1 [[356:358-
			1			403:405-
						453:455-
<u> </u>						495:497-
<i>!</i> /			1 1			544
1886	BTB	BTB/POZ domain	5.3e-32	119.7	1	26-134
1887	UBA	UBA/TS-N domain	1.9e-05	31.5	1	726-765
1887	rrm	RNA recognition motif.	0.00026	27.8	1	1342-1407
1887	MARCKS	MARCKS family	4.3	-90.8	1	270-571
1888	UBA	UBA/TS-N domain	1.9e-05	31.5	1	726-765
1888	rrm	RNA recognition motif.	0.00026	27.8	1	1303-1368
1888	MARCKS	MARCKS family	4.3	-90.8	1	270-571
1889	UBA	UBA/TS-N domain	1.9e-05	31.5	1	726-765
1889	rrm	RNA recognition motif.	0.00026	27.8	1	1245-1310
1889	MARCKS	MARCKS family	4.3	-90.8	1	270-571
1889	Atrophin-	Atrophin-1 family	6.9	-676.1	1	237-986
	I		<u> </u>			
1890	Na_H_Ex	Sodium/hydrogen exchanger family	2.4e-18	74.4	1	119-520
	changer					
1890	Na_Ca_E	Sodium/calcium exchanger protein	3.1	-43.6	1	270-384
	x					
1890	7tm_5	7TM chemoreceptor	3.8	-163.7	1	259-503
1890	Abi	CAAX amino terminal protease family	5.9	-25.8	1	309-401
1890	oxidored_	NADH-Ubiquinone/plastoquinone	7.9	-169.7	1	251-502
1001	ql Arvl	Cotosello long aboli	00 ==	2512		
1891	Acyl-	Cytosolic long-chain acyl-CoA thioeste	8.9e-72	251.9	2	26-
	CoA_hydr					168:200-
1001	0 4DNIA4	OD 614				336
1891	tRNA_ant	OB-fold nucleic acid binding domain	3.5	5.8	1	230-307

SEQ ID	Model	Description	E-value	Score	Repeats	Position
	i					
1892	zf-DHHC	DHHC zinc finger domain	8.6e-18	72.5	1	145-207
1894	SPRY	SPRY domain	4.5e-11	50.2	1	353-474
1894	fn3	Fibronectin type III domain	0.054	17.6	1	165-258
1895	dsrm	Double-stranded RNA binding motif	1.5e-12	55.1	2	229- 293:337- 401
1895	ww	WW domain	0.00016	28.5	1	20-49
1896	SPRY	SPRY domain	9.9e-26	98.9	1	186-301

FABLE 5

PDB annotation	SIGNALING PROTEIN CALCIUM BINDING, SIGNALING DOMAIN, NPF BINDING, FW BINDING, 2 EF-HAND, EH DOMAIN, SIGNALING PROTEIN	SIGNALING PROTEIN CALCIUM BINDING, SIGNALING DOMAIN, NPF BINDING, FW BINDING, 2 EF-HAND, EH DOMAIN, SIGNALING PROTEIN		CALCIUM BINDING EH2, EPIDERMAL GROWTH FACTOR RECEPTOR SUBSTRATE CALCIUM BINDING, SIGNALING DOMAIN, NPF BINDING, EF-HAND, EH 2 DOMAIN	CALCIUM BINDING EH2, EPIDERMAL GROWTH FACTOR RECEPTOR SUBSTRATE CALCIUM BINDING, SIGNALING DOMAIN, NPF BINDING, EF-HAND, EH 2 DOMAIN			CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)
Coumpound	EPIDERMAL GROWTH FACTOR RECEPTOR PATHWAY CHAIN: A;	EPIDERMAL GROWTH FACTOR RECEPTOR PATHWAY CHAIN: A;	CALCTUM-BINDING PROTEIN CALMODULIN (VERTEBRATE) ICLL 3	EPS15; CHAIN: NULL;	EPS15; CHAIN: NULL;	CALCIUM-BINDING PROTEIN RAT ONCOMODULIN 1RRO 3	CALCIUM BINDING PROTEIN CALMODULIN (/TR=2=C\$ FRAGMENT COMPRISING RESIDUES 78 - 148 1TRC 3 OF THE INTACT MOLECULE) 1TRC 4	CALMODULIN; CHAIN: A; RS20; CHAIN: B;
SEQFOL D score						:		
PMF score	1.00	0.88	0.22	1.00	66:0	86.0	0.23	0.15
Verify score	0.77	-0.14	-0.02	0.58	0.72	0.33	-0.21	-0.39
Psi Blast	5.7e-21	1.7e-07	3.8e-05	1.1e-31	6.8c-11	1.3e-05	1.5e-05	3.8e-05
END	698	86	345	369	16	348	345	345
STAR T AA	279	4	293	278	3	280	284	293
CHAI N ID	¥	٧					¥	¥
PDB ID	1007	1007	Icli	1eh2	1eh2	lrro	ltrc	lvrk .
SEQ ID NO:	951	951	951	951	951	951		156

PDB annotation	METAL BINDING PROTEIN CALCIUM BINDING PROTEIN		CALCIUM BINDING PROTEIN	MUSCLE PROTEIN	MUSCLE PROTEIN CTNC; CARDIAC, MUSCLE PROTEIN, REGULATORY, CALCIUM BINDING	HYDROLASE CALCINEURIN; HYDROLASE, PHOSPHATASE, IMMUNOSUPPRESSION	MUSCLE PROTEIN MDE; MUSCLE PROTEIN	CALCIUM BINDING CALCIUM BINDING	SIGNALING PROTEIN CALCIUM BINDING, SIGNALING DOMAIN, NPF BINDING, FW BINDING, 2 EF-HAND, EH DOMAIN, SIGNALING PROTEIN	SIGNALING PROTEIN CALCIUM BINDING, SIGNALING DOMAIN, NPF BINDING, FW BINDING, 2 EF-HAND, EH DOMAIN, SIGNALING PROTEIN		STRUCTURAL PROTEIN HELIX- TURN-HELIX	CALCIUM BINDING EH2, EPIDERMAL GROWTH FACTOR
Coumpound	PARVALBUMIN; CHAIN: A;	BINDING PROTEIN SARCOPLASMIC CALCIUM- BINDING PROTEIN 2SCP 3	PARVALBUMIN; CHAIN: A, B		TROPONIN C; CHAIN: NULL;	SERINE/THREONINE PHOSPHATASE 2B; CHAIN: A, B:	MYOSIN; CHAIN: A, B, C, D, E, F, G, H;	CALCIUM-BINDING PROTEIN; CHAIN: NULL;	EPIDERMAL GROWTH FACTOR RECEPTOR PATHWAY CHAIN: A;	EPIDERMAL GROWTH FACTOR RECEPTOR PATHWAY CHAIN: A;	CALCIUM-BINDING PROTEIN CALMODULIN (VERTEBRATE) ICLL 3	CARDIAC TROPONIN C; CHAIN: A;	EPS15; CHAIN: NULL;
SEQFOL D score													
PMF	0.25	0.47	0.05		0.17	0.13	0.18	0.05	1.00	0.90	0.22	0.18	1.00
Verify	-0.13	-0.13	-0.81		0.02	-0.03	-0.05	-0.24	0.77	0.10	-0.02	-0.16	0.58
Psi Blast	3.8e-05	5.7e-06	0.00095		5.7e-05	0.00038	0.0019	0.0038	5.7e-21	5.1e-12	3.8e-05	0.0038	1.1e-31
END AA	348	345	389		377	377	377	389	369	66	345	389	369
STAR T AA	293	283	310		280	280	282	310	279	4	293	280	278
CHAI N ID	⋖_	V	A			В	Ф	,	¥	¥		<	
PDB ID	2pvb	2scp	1a75		1aj4	1aui	1br1	1bu3	1c07	1c07	1cl	1dt	1eh2
SEQ ID NO:	951	951	952		952	952	952	952	952	952	952	952	952

PDB annotation	RECEPTOR SUBSTRATE CALCIUM BINDING, SIGNALING DOMAIN, NPF BINDING, EF-HAND, EH 2 DOMAIN	CALCIUM BINDING EH2, EPIDERMAL GROWTH FACTOR RECEPTOR SUBSTRATE CALCIUM BINDING, SIGNALING DOMAIN, NPF BINDING, EF-HAND, EH 2 DOMAIN	GROWTH FACTOR EHI; EH DOMAIN, EPSIS, EF-HAND, SOLUTION STRUCTURE, S100 PROTEIN			CALMODULM, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)	CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)	METAL BINDING PROTEIN CALCIUM BINDING PROTEIN	
Coumpound		EPS15; CHAIN: NULL;	EPIDERMAL GROWTH FACTOR RECEPTOR SUBSTRATE CHAIN: A;	CALCIUM-BINDING PROTEIN RAT ONCOMODULIN IRRO 3	CALCIUM BINDING PROTEIN CALMODULIN (/TR=2=C\$ FRAGMENT COMPRISING RESIDUES 78 - 148 1TRC 3 OF THE INTACT MOLECULE) 1TRC	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	PARVALBUMIN; CHAIN: A;	BINDING PROTEIN SARCOPLASMIC CALCIUM- BINDING PROTEIN 2SCP 3
SEQFOL D score			,						
PMF score		66.0	0.80	86:0	0.23	0.49	0.15	0.25	0.47
Verify score		0.81	0.64	0.33	-0.21	-0.23	-0.39	-0.13	-0.13
Psi Blast		1.7e-13	1.7e-08	1.3e-05	1.5e-05	0.00038	3.8e-05	3.8e-05	5.7e-06
END		26	97	348	345	377	345	348	345
STAR T AA		3	14	280	284	280	293	293	283
CHAI N ID			A		¥	Ą	٧	٧	A
PDB ID		1eh2	1qjt	Irro	1trc	lvrk	lvrk	2pvb	2scp
SEQ 1D NO:		952	952	952	952	952	952	952	952

PDB annotation	COMPLEX (TRANSFERASE/PEPTIDE) COMPLEX (TRANSFERASE/PEPTIDE)	COMPLEX (TRANSFERASE/PEPTIDE) ITAM PEPTIDE; COMPLEX (TRANSFERASE/PEPTIDE), SYK, KINASE, SH2 DOMAIN, ITAM		COMPLEX (PROTO- ONCOGENEJEARLY PROTEIN) SRC HOMOLOGY 2 DOMAIN; SH2 DOMAIN, SIGNAL TRANSDUCTION, PEPTIDE COMPLEX, 2 COMPLEX (PROTO-ONCOGENEJEARLY PROTEIN)		SH2 DOMAIN PHOSPHATIDYLINOSITOL 3-KINASE REGULATORY ALPHA SH2
Coumpound	C-SRC TYROSINE KINASE; CHAIN: A, B; ACE-FORMYL PHOSPHOTYR-GLU-(N,N- DIPENTYL AMINE); CHAIN: C, D;	SYK KINASE; CHAIN: A, C, E, G, I, K; T-CELL SURFACE GLYCOPROTEIN CD3 EPSILON CHAIN; CHAIN: B, D, F, H, J, L;	TRANSFERASE(PHOSPHOTRA NSFERASE) PROTO- ONCOGENE TYROSINE KINASE (E.C.2.7.1.112) 1AB2 3 (SRC HOMOLOGY 2 DOMAIN) (ABELSON, SH2 ABL) 1AB2 4 (NMR, 20 STRUCTURES) 1AB2 5	FYN PROTEIN-TYROSINE KINASE; CHAIN: F; PHOSPHOTYROSYL PEPTIDE; CHAIN: P	HYDROLASE(SH2 DOMAIN) TYROSINE PHOSPHATASE SYP (N-TERMINAL SH2 DOMAIN) 1AYA 3 (PTP1D, SHPTP2) (E.C.3.1.3.48) COMPLEXED WITH THE PEPTIDE 1AYA 4 PDGFR-1009 1AYA 5	P85 ALPHA; CHAIN: NULL;
SEQFOL D score						
PMF score	86.0	0.72	0.63	66.0	1.00	0.82
Verify	0.34	0.27	0.02	0.46	0.18	0.36
Psi Blast	3.8e-17	1.5e-18	3.86-17	1.7e-17	7.6e-18	3.8e-19
END	413	413	417	413	412	418
STAR T AA	319	255	319	319	317	319
CHAI N ID	V	Ą		្រ	Ą	
PDB ID	1a09	1881	1ab2	laot	laya	1bfi
SEQ NO:	953	953	953	953	953	953

PDB annotation	DOMAIN, P85ALPHA, PI 3-KINASE, NMR, C TERMINAL SH2 2 DOMAIN	COMPLEX (PHOSPHOTRANSFERASE/PEPTIDE) PROTEIN-TYROSINE KINASE SH2 DOMAIN, COMPLEX 2 PHOSPHOTP ANSEED A SPIDEDTIDE)	STRUCTURAL STRONG STRUCTURAL SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	GENE REGULATION SH2 DOMAINS	SIGNALING PROTEIN SLAM; SH2 DOMAIN, TYROSINE KINASE,	SIGNAL TRANSDUCTION, PEPTIDE 2 RECOGNITION	SH2 DOMAIN GRB2; GRB2, SH2 DOMAIN, PROTEIN NMR, SOLUTION STRUCTURES	
Coumpound		SYK PROTEIN TYROSINE KINASE; CHAIN: A; ACETYL- THR-PTR-GLU-THR-LEU-NH2; CHAIN: B;	ALPHA SPECTRIN; CHAIN: A, B, C;	SAP SH2 DOMAIN; CHAIN: A, B, C, D;	T CELL SIGNAL TRANSDUCTION MOLECULE	SAP; CHAIN: A; SIGNALING LYMPHOCYTIC ACTIVATION MOLECULE; CHAIN: B;	GROWTH FACTOR RECEPTOR BOUND PROTEIN-2; CHAIN: NULL;	PHOSPHORIC DIESTER HYDROLASE PHOSPHOLIPASE C-GAMMA-1 (E.C.3.1.4.11) (C- TERMINAL SH2 2PLD 3 DOMAN COMPRISING RESIDUES 663 - 759) COMPLEXED WITH A 2PLD 4 PHOSPHOPEPTIDE FROM THE PLATELET-DERIVED GROWTH FACTOR 2PLD 5 RECEPTOR (RESIDUES 1018 - 1029: ASP- ASN-ASP-PTYR-11 E-11 E- 2PLD 6
SEQFOL D score							58.62	
PMF score		0.82	0.06	0.49	0.75			0.49
Verify score		0.33	0.05	0.04	0.22			0.32
Psi Blast		3.8e-19	0.00013	5.7e-18	1.9e-19		0.0017	9.5e-19
END AA		416	228	413	413		425	417
STAR T		319	140	320	319		312	319
CHAI N ID		4	A	æ	¥			∢
PDB ID		lcsy	Icun	Idlz	1d4t		l fhs	2pld
SEQ ID NO:		953	953	953	953		953	953

PDB annotation		COMPLEX (TRANSFERASE/PEPTIDE) COMPLEX (TRANSFERASE/PEPTIDE)	COMPLEX (TRANSFERASE/PEPTIDE) ITAM PEPTIDE; COMPLEX (TRANSFERASE/PEPTIDE), SYK, KINASE, SHZ DOMAIN, ITAM		COMPLEX (PROTO- ONCOGENE/EARLY PROTEIN) SRC HOMOLOGY 2 DOMAIN; SH2 DOMAIN, SIGNAL TRANSDUCTION, PEPTIDE COMPLEX, 2 COMPLEX (PROTO-ONCOGENE/EARLY PROTEIN)	
Coumpound	PRO-LEU-PRO-ASP-PRO-LYS) (NIMR, MINIMIZED AVERAGE STRUCTURE) 2PLD 7	C-SRC TYROSINE KINASE; CHAIN: A, B; ACE-FORMYL PHOSPHOTYR-GLU-(N,N- DIPENTYL AMINE); CHAIN: C, D;	SYK KINASE; CHAIN: A, C, E, G, I, K; T-CELL SURFAGE GLYCOPROTEIN CD3 EPSILON CHAIN; CHAIN: B, D, F, H, J, L;	TRANSFERASE(PHOSPHOTRA NSFERASE) PROTO- ONCOGENE TYROSINE KINASE (E.C.2.7.1.112) 1AB2 3 (SRC HOMOLOGY 2 DOMAIN) (ABELSON, SH2 ABL) 1AB2 4 (NMR, 20 STRUCTURES) 1AB2 5	FYN PROTEIN-TYROSINE KINASE; CHAIN: F; PHOSPHOTYROSYL PEPTIDE; CHAIN: P	HYDROLASE(SHZ DOMAIN) TYROSINE PHOSPHATASE SYP (N-TERMINAL SH2 DOMAIN) 1AYA 3 (PTP1D, SHPTP2) (E.C.3.1.3.48) COMPLEXED WITH THE PEPTIDE 1AYA 4
SEQFOL D score						
PMF score		96.0	0.72	0.63	0.99	1.00
Verify score		0.34	0.27	0.02	0.46	0.18
Psi Blast		3.8e-17	1.5e-18	3.8e-17	1.7e-17	7.6e-18
END		440	440	444	440	439
STAR T AA		346	282	346	346	344
CHAI N ID		¥	∢		ſr.	∢
PDB UI		1a09	1881	1ab2	laot	laya
SEQ NO:		954	954	954	954	954

PDB annotation		SH2 DOMAIN PHOSPHATIDYLNOSITOL 3-KINASE REGULATORY ALPHA SH2 DOMAIN, P85ALPHA, PI 3-KINASE, NMR, C TERMINAL SH2 2 DOMAIN	COMPLEX (PHOSPHOTRANSFERASE/PEPTIDE) PROTEIN-TYROSINE KINASE SH2 DOMAIN, COMPLEX 2 (PHOSPHOTRANSFERASE/PEPTIDE)	GENE REGULATION SH2 DOMAINS	SIGNALING PROTEIN SLAM; SH2 DOMAIN, TYROSINE KINASE, SIGNAL TRANSDUCTION, PEPTIDE 2 RECOGNITION	
Coumpound	PDGFR-1009 1AYA 5	P85 ALPHA; CHAIN: NULL;	SYK PROTEIN TYROSINE KINASE; CHAIN: A; ACETYL- THR-PTR-GLU-THR-LEU-NH2; CHAIN: B;	SAP SH2 DOMAIN; CHAIN: A, B, C, D;	T CELL SIGNAL TRANSDUCTION MOLECULE SAP; CHAIN: A; SIGNALING LYMPHOCYTIC ACTIVATION MOLECULE; CHAIN: B;	PHOSPHORIC DIESTER HYDROLASE PHOSPHOLIPASE C-GAMMA-1 (E.C.3.1.4.11) (C- TERMINAL SH2 2PLD 3 DOMAIN COMPRISING RESIDUES 663 - 759) COMPLEXED WITH A 2PLD 4 PHOSPHOPEPTIDE FROM THE PLATELET-DERIVED GROWTH FACTOR 2PLD 5 RECEPTOR (RESIDUES 1018 - 1029: ASP- ASN-ASP-PTYR-ILE-ILE- 2PLD 6 PRO-LEU-PRO-ASP-PRO-LYS) (NMR, MINIMIZED AVERAGE STRUCTURE) 2PLD 7
SEQFOL D score						
PMF score		0.82	0.82	0.49	0.75	0.49
Verify score		0.36	0.33	0.04	0.22	0.32
Psi Blast		3.8e-19	3.8e-19	5.7c-18	1.9e-19	9.56-19
END		445	443	440	440	444
STAR T AA		346	346	347	346	346
CHAI N ID			¥	В	A	¥
aga 1D		ıjqı	lcsy	Idlz	1d4t	2pid
SEQ ID NO:		954	954	954	954	954

AA AA score score D score 427 1.7e-77 150.38	ify PMF SEQFOL	re D score	h	REGIC CHRC CONI B, C;	Coumpound REGULATOR OF CHROMOSOME CONDENSATION I; CHAIN: A, B, C;	GUANINE NUCLEOTIDE EXCHANGE FACTOR RCC1; GUANINE NUCLEOTIDE EXCHANGE FACTOR, GEF, RAN, 2 RAS-LIKE NUCLEAR GTP BINDING PROTEIN HEADER TER
51 423 1.7e-77 0.69 1.00 REGU CHR(CONI	1.00		. В. С. С. В. С. В. С. В. С. В. С. В. С. В. С. В. С. В. С. В. В. С. В. В. С. В. В. С. В. В. В. В. В. В. В. В. В. В. В. В. В.	5 E O %	REGULATOR OF CHROMOSOME CONDENSATION I; CHAIN: A, B, C;	GUANINE NUCLEOTIDE EXCHANGE FACTOR RCC1; GUANINE NUCLEOTIDE EXCHANGE FACTOR, GEF, RAN, 2 RAS-LIKE NUCLEAR GTP BINDING PROTEIN HEADER TER
85 183 0.0076 -0.16 0.05 PRO	0.05		PRC	₩ H	PROLINE IMINOPEPTIDASE; CHAIN: A, B;	AMINOPEPTIDASE, PROLINE IMINOPEPTIDASE, SERINE PROTEASE, 2 XANTHOMONAS CAMPESTRIS
166 204 0.00038 -0.67 0.49 TR	0.49		TR HY	H 子	TRIACYLGLYCEROL HYDROLASE; CHAIN: NULL;	HYDROLASE TRIACYLGLYCEROL- HYDROLASE, X-RAY CRYSTALLOGRAPHY, 2 PSEUDOMONADACEAE, OXYANION, CIS-PEPTIDE, HYDROLASE
86 204 7.6e-05 0.14 0.57 PA	0.57		PAI	M H	PALMITOYL PROTEIN THIOESTERASE 1; CHAIN: A;	HYDROLASE ALPHA/BETA HYDROLASE, GLYCOPROTEIN
165 204 0.0048 -0.60 0.23 TR	0.23		TR	F H	TRIACYL-GLYCEROL- HYDROLASE; CHAIN: D, E;	LIPASE LIPASE; LIPASE, HYDROLASE, PSEUDOMONADACEAE, COVALENT INTERMEDIATE, 2 TRIGLYCERIDE ANALOGUE, ENANTIOSELECTIVITY
2 121 3.8e-38 0.57 1.00 UB	1.00		UB	8 S	UBIQUITIN-CONJUGATING ENZYME RAD6: CHAIN: A. B. C.	UBIQUITIN CONJUGATION UBC2;

PDB annotation	UBIQUITIN-CONJUGATING ENZYME	UBIQUITIN CONJUGATION UBC2; UBIQUITIN CONJUGATION, UBIQUITIN-CONJUGATING ENZYME	UBIQUITIN CONJUGATION UBC2; UBIQUITIN CONJUGATION, UBIQUITIN-CONJUGATING ENZYME	LIGASE UBIQUITIN, UBIQUITIN- CONJUGATING ENZYME, YEAST	LIGASE UBIQUITIN, UBIQUITIN- CONJUGATING ENZYME, YEAST	UBIQUITIN CONJUGATION UBC1; UBIQUITIN CONJUGATION, LIGASE	UBIQUITIN CONJUGATION UBCI; UBIQUITIN CONJUGATION, LIGASE	UBIQUITIN CONJUGATION UBC2; UBIQUITIN CONJUGATION, UBIQUITIN-CONJUGATING ENZYME	UBIQUITIN CONIUGATION UBC2; UBIQUITIN CONIUGATION, UBIQUITIN-CONIUGATING ENZYME	UBIQUITIN CONJUGATION UBC2; UBIQUITIN CONJUGATION, UBIQUITIN-CONJUGATING ENZYME	LIGASE UBIQUITIN, UBIQUITIN- CONJUGATING ENZYME, YEAST	LIGASE UBIQUITIN, UBIQUITIN-
Coumpound		UBIQUITIN-CONJUGATING ENZYME RAD6; CHAIN: A, B, C;	UBIQUITIN-CONJUGATING ENZYME RAD6; CHAIN: A, B, C;	UBIQUITIN CONJUGATING ENZYME; CHAIN: A;	UBIQUITIN CONJUGATING ENZYME; CHAIN: A;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN-CONJUGATING ENZYME RAD6; CHAIN: A, B, C;	UBIQUITIN-CONJUGATING ENZYME RAD6; CHAIN: A, B, C;	UBIQUITIN-CONIUGATING ENZYME RADG; CHAIN: A, B, C;	UBIQUITIN CONJUGATING ENZYME; CHAIN: A;	UBIQUITIN CONJUGATING
SEQFOL D score		124.83			70.02		141.95			162.79		102.58
PMF score			1.00	1.00		00'1		1.00	1.00		1.00	
Verify			0.63	0.62		65.0		1.15	0.91		0.63	
Psi Blast		3.8e-38	5.1e-37	3.4e-40	3.4e-40	3.4e-37	3.4e-37	1.5e-46	1.9e-48	1.9e-48	1.5e-50	1.5e-50
END AA		121	121	119	120	119	120	136	981	136	134	135
STAR T AA		7	2	-	3	ı	1	2	2	2	1	3
CHAI N ID		4	¥	V	Ą			٧	¥	A	V	Ą
PDB ID		layz	layz	1qcq	lqcq	2aak	2aak	layz	layz	layz	Iqcq	Iqcq
SEQ NO:		962	962	796	362	362	962	963	963	963	963	963

PDB annotation	CONJUGATING ENZYME, YEAST	UBIQUITIN CONJUGATION UBC1; UBIQUITIN CONJUGATION, LIGASE	UBIQUITIN CONJUGATION UBC1;	MOTOR PROTEIN MOTOR PROTEIN, ATPASE, MICROTUBULE ASSOCIATED	MOTOR PROTEIN MOTOR PROTEIN, ATPASE, MICROTUBULE ASSOCIATED	CONTRACTILE PROTEIN NCD, CLARET SEGREGATIONAL	PROTEIN; NCD CRYSTAL STRUCTURE, MICROTUBULE	MOTORS, KINESIN 2 SUPERFAMILY, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN NCD,	CLARET SEGREGATIONAL PROTEIN; NCD CRYSTAL	STRUCTURE, MICROTUBULE	MOTORS, KINESIN 2 SUPERFAMILY, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN NCD,	CLARET SEGREGATIONAL	PROTEIN; NCD CRYSTAL	MOTORS KINESIN STIPERFAMILY	CONTRACTILE PROTEIN	ENDOCYTOSIS/EXOCYTOSIS	NSECI; PROTEIN-PROTEIN	TRANSCRIPTION INHIBITOR BETA-
Coumpound	ENZYME; CHAIN: A;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONJUGATING FNZYME: CHAIN: NIII I:	KINESIN; CHAIN: NULL;	KINESIN; CHAIN: NULL;	MICROTUBULE MOTOR PROTEIN NCD; CHAIN: A, B, C,	ά		MICROTUBULE MOTOR	PROTEIN NCD; CHAIN: A, B, C, D;			MICROTUBULE MOTOR	PROTEIN NCD; CHAIN: A, B, C,	ີ			SYNTAXIN BINDING PROTEIN	1; CHAIN: A; SYNTAXIN 1A;	TRANSCRIPTIONAL
SEQFOL D score			179.88	207.35					139.50											
PMF score		00'1			1.00	00'1							1.00					-0.18		0.98
Verify score		0.88			0.39	0.33				•			0.34					0.15		0.54
Psi Blast		3.4e-48	3.4e-48	0	0	1.7e-81			1.7e-98				1.7e-98					1.3e-15		1.7e-78
END AA		134	135	371	371	372			372				372					825		1643
STAR T AA		1	_	9	7	5			7				6					647		1269
CHAI N ID						4			¥				¥					В		A
PDB ID		2aak	2aak	1bg2	lbg2	1cz7			1cz7				lcz)					Idbl		1erj
SEQ ID NO:		696	963	97.1	11/6	126			971				971					97.1		971

PDB annotation	PROPELLER	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	CONTRACTILE PROTEIN KINESIN, MICROTUBULE-BASED MOTOR,
Coumpound	REPRESSOR TUPI; CHAIN: A, B, C;	GT-ALPHA/Gİ-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN MOTOR NCD; CHAIN: A;
SEQFOL D score		115.67			135.00			
PMF score			1:00	1.00		1.00	66.0	1.00
Verify			0.88	0.42		60.0	-0.48	0.34
Psi Blast		16-98	16-98	3.46-46	1.5e-71	1.5e-71	1.7e-36	1e-81
END		1600	1640	1660	260	281	380	370
STAR T AA		1229	1317	1429	ы	7	296	5
CHAI N ID		В	м	g	¥	¥	В	¥
PDB ID		lgot	1got	1got	2kin	2kin	2kin	2ncd
SEQ ID		971	971	971	97.1	971	971	971

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PDB annotation	NCD, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN KINESIN, MICROTUBULE-BASED MOTOR, NCD, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN, MOTOR 2 PROTEIN, A TPASE, P. LOOP, MICROTUBULE BINDING PROTEIN	CONTRACTILE PROTEIN CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN, MOTOR 2 PROTEIN, ATPASE, P. LOOP, MICROTUBULE BINDING PROTEIN	CONTRACTILE PROTEIN CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN, MOTOR 2 PROTEIN, ATPASE, P- LOOP, MICROTUBULE BINDING PROTEIN	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	GENE REGULATION POZ DOMAIN; PROTEIN-PROTEIN INTERACTION DOMAIN, TRANSCRIPTIONAL 2 REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC
Coumpound		KINESIN MOTOR NCD; CHAIN: A;	KINESIN-LIKE PROTEIN KAR3; CHAIN: NULL;	KINESIN-LIKE PROTEIN KAR3; CHAIN: NULL;	KINESIN-LIKE PROTBIN KAR3; CHAIN: NULL;	KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;	KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;	PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;
SEQFOL D score		132.55	165.99					
PMF score				1.00	1.00	1.00	1.00	1.00
Verify score				0.30	0.19	-0.23	-0.39	0.20
Psi Blast		1e-81	1.9e-91	1e-83	1.9e-91	3.8e-35	6.8e-28	1.7e-20
END AA		371	370	370	370	380	405	125
STAR T AA			∞	00	6	298	298	w
CHAI N ID		A				В	æ	∢
PDB ID		2ncd	3kar	3kar	3kar	3kin	3kin	Ibuo
SEQ ID NO:		971	971	971	971	126	971	975
				370				

PDB annotation	LEUKEMIA, GENE REGULATION	GENE REGULATION POZ DOMAIN; PROTEIN-PROTEIN INTERACTION DOMAIN, TRANSCRIPTIONAL 2 REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION	GENE REGULATION POZ DOMAIN; PROTEIN-PROTEIN INTERACTION DOMAIN, TRANSCRIPTIONAL 2 REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION			MOTOR PROTEIN MOTOR PROTEIN, ATPASE, MICROTUBULE ASSOCIATED	MOTOR PROTEIN MOTOR PROTEIN, ATPASE, MICROTUBULE ASSOCIATED	CONTRACTILE PROTEIN NCD, CLARET SEGREGATIONAL PROTEIN; NCD CRYSTAL STRUCTURE, MICROTUBULE
Coumpound		PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;	PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) IGOF 3	KINESIN; CHAIN: NULL;	KINESIN; CHAIN: NULL;	MICROTUBULE MOTOR PROTEIN NCD; CHAIN: A, B, C, D;
SEQFOL D score			58.76			220.57		160.51
PMF score		0.99		0.19	-0.02		1.00	
Verify		0.41		0.10	0.03		0.74	
Psi Blast		3.8e-28	3.8e-28	0.0022	5.1e-10	6.8e-81	6.8e-81	8.5e-69
END AA		128	130	464	385	352	352	352
STAR		8	v	251	288		2	3
CHAI N ID		¥	∢					∢
PDB ID		1buo	1buo	1gof	1gof	1bg2	1bg2	1cz7
SEQ ID NO:		975	975	975	975	716		21.6

PDB annotation	MOTORS, KINESIN 2 SUPERFAMILY, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN NCD,	PROTEIN; NCD CRYSTAL	STRUCTURE, MICROTUBULE	CONTRACTILE PROTEIN	ENDOCYTOSIS/EXOCYTOSIS	COMPLEX, MULTI-SUBUNIT	MEMBRANE PROTEIN FOUR HELIX	BUNDLE, ALPHA HELIX	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN,	The second of th	MOTOR PROTEIN MOTOR PROTEIN,	MOTOR PROTEIN MOTOR PROTEIN,	CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN,	MOTOR DEOTERN MOTOR DEOTERN	CYTOSKELETON	CONTRACTILE PROTEIN KINESIN,	MICROTUBULE-BASED MOTOR,	NCD, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN KINESIN,	MICROTUBULE-BASED MOTOR,	NCD, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN	CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN,
Coumpound		MICROTUBULE MOTOR PROTEIN NCD: CHAIN: A. B. C.	D;			SYNTAXIN BINDING PROTEIN	I; CHAIN: A; STNIAKIN IA; CHAIN: B;	SSO1 PROTEIN; CHAIN: A;		KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;		KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;		KINESIN; CHAIN: A, B;	VINESPI. CHARL A D.	NINESIN; CRAIN; A, B;	KINESIN MOTOR NCD; CHAIN:	,;;		KINESIN MOTOR NCD; CHAIN:	Α;		KINESIN-LIKE PROTEIN KAR3;	CHAIN: NULL;
SEQFOL D score										151.15	151.15								157.70						185.54	
PMF score		1.00				0.16		0.10				30.	00.1	1.00		1.00	1 00	3.				1.00				
Verify score		0.58				0.21		-0.00					0.38	0.45		-0.24	000	-0.22				0.64				
Psi Blast		8.5e-69				5.7e-05	-	0.0057		5.2e-72	5.7e-72		1.2e-55	5.7e-72		1.7e-17	1 00 26	1.36-30	1.2e-68			1.2e-68			3.4e-66	
END		354				430		766		259	259	3.0	807	259	-	366	264	, O.	352			346			351	
STAR T AA		2		•		365		582				ļ	7	2		272	27.4	+/7	3			2			4	
CHAI N ID		A				В		4		٧	4		∢	¥		Δ	ď	a	V			∢				
PDB ID		lcz7				1dn1		150		2kin	2kin		rkin 7kin	2kin		2kin	olyin.	T T T	2ncd			2ncd			3kar	
SEQ ID NO:		716				226		22.6		21.6	21.6	7	116	222		22.6	077	,,,	21.6			1776			677	

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PDB annotation	MOTOR 2 PROTEIN, ATPASE, P- LOOP, MICROTUBULE BINDING PROTEIN	CONTRACTILE PROTEIN CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN, MOTOR 2 PROTEIN, ATPASE, P- LOOP, MICROTUBULE BINDING PROTEIN	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON		COMPLEX (BLOOD COAGULATION/INHIBITOR)	AUTOPROTHROMBIN IIA;	HYDROLASE, SERINE	PROTEINASE), PLASMA CALCIUM	BINDING, 2 GLYCOPROTEIN, COMPLEX (BLOOD	COAGULATION/INHIBITOR)	COMPLEX (BLOOD	COAGULATION/INHIBITOR)	AUTOPROTHROMBIN IIA;	HYDROLASE, SERINE	PROTEINASE), PLASMA CALCIUM	BINDING, 2 GLYCOPROTEIN,	COMPLEX (BLOOD	COAGULA HON/INHIBITOR)	SURFACE PROTEIN MEROZOITE SURFACE ANTIGEN 1. MAJOR	BLOOD-STAGE EGF-LIKE DOMAIN	EXTRACELLI AR MODIT AR
	NUM	<u> </u>	∑ ເ	Συ	-	00	₹	Ξ i	<u> </u>	<u> </u>	Ö	Ö	Ŏ	≺	Ξ	<u>~</u>	<u> </u>	5 (5	<u> </u>	B	<u> </u>
Coumpound		KINESIN-LIKE PROTEIN KAR3; CHAIN: NULL;	KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;	KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;		ACTIVATED PROTEIN C; CHAIN: C, L; D-PHE-PRO-MAI;	CHAIN: P;					ACTIVATED PROTEIN C;	CHAIN: C, L; D-PHE-PRO-MAI;	CHAIN: P;						MEROZOITE SURFACE PROTEIN 1: CHAIN: A:		
SEQFOL D score																						
PMF		1.00	0.99	1.00		-0.19						0.41								0.16		
Verify		0.58	-0.10	-0.19		0.03						0.36								-0.11		
Psi Blast		3.4e-66	1.5e-34	1e-16		1.5e-10						1.le-24								1.9e-20		
END		348	364	366		029						823								820		
STAR T AA		\$	276	276		297						745								740		
CHAI N ID			В	В		J						Ţ								∢		
PDB ID		3kar	3kin	3kin		laut						laut								lcej		
SEQ ID NO:		776	716	977		982	-					982								982		

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PDB annotation	PROTEIN, SURFACE 2 ANTIGEN, MALARIA VACCINE COMPONENT, SURFACE PROTEIN	GLYCOPROTEIN MEMBRANE	COFACTOR PROTEIN (MCP); VIRUS	RECEPTOR, COMPLEMENT COFACTOR, SHORT CONSENSITS	REPEAT, 2 SCR. MEASLES VIRUS.	GLYCOPROTEIN	APOPTOSIS TRAIL; DR5; LIGAND-	RECEPTOR COMPLEX, TRIMERIC	JELLY-ROLL, TNF-R 2	SUPERFAMILY, APOPTOSIS	BLOOD COAGULATION, SERINE	PROTEASE, COMPLEX, CO-FACTOR,	2 RECEPTOR ENZYME, INHIBITOR,	GLA, EGF, 3 COMPLEX (SERINE	PROTEASE/COFACTOR/LIGAND)		BLOOD COAGULATION, SERINE	PROTEASE, COMPLEX, CO-FACTOR,	2 RECEPTOR ENZYME, INHIBITOR,	GLA, EGF, 3 COMPLEX (SERINE	PROTEASE/COFACTOR/LIGAND)	•	BLOOD COAGULATION, SERINE	PROTEASE, COMPLEX, CO-FACTOR,	2 RECEPTOR ENZYME, INHIBITOR,	GLA, EGF, 3 COMPLEX (SERINE	PROTEASE/COFACTOR/LIGAND)		HYDROLASE/HYDROLASE	NHIBITOR PROTEIN-PEPTIDE	COMPLEX
Coumpound		CD46; CHAIN: A, B, C, D, E, F;		•			TNF-RELATED APOPTOSIS	INDUCING LIGAND; CHAIN: B;	DEATH RECEPTOR 5; CHAIN:	A;	BLOOD COAGULATION	FACTOR VIIA; CHAIN: L, H;	SOLUBLE TISSUE FACTOR;	CHAIN: T, U; D-PHE-PHE-ARG-	CHLOROMETHYLKETONE	(DFFRCMK) WITH CHAIN: C;	BLOOD COAGULATION	FACTOR VIIA; CHAIN: L, H;	SOLUBLE TISSUE FACTOR;	CHAIN: T, U; D-PHE-PHE-ARG-	CHLOROMETHYLKETONE	(DFFRCMK) WITH CHAIN: C;	BLOOD COAGULATION	FACTOR VIIA; CHAIN: L, H;	SOLUBLE TISSUE FACTOR;	CHAIN: T, U; D-PHE-PHE-ARG-	CHLOROMETHYLKETONE	(DFFRCMK) WITH CHAIN: C;	DES-GLA FACTOR VIIA	(HEAVY CHAIN); CHAIN: H, I;	DES-GLA FACTOR VIIA (LIGHT
SEQFOL D score																															
PMF score		0.17		·			-0.12		,		0.11	•					0.27						0.00						0.00		
Verify score		0.22					0.29				0.13						-0.19						-0.16						-0.18		
Psi Blast		1.9e-16					5.7e-09				6.8e-16						1.1e-24						3.8e-24						3.8e-23		
END		107					859				823						831						846						831		
STAR T AA		3					929				738						741						759						734		
CHAI N ID		A					Ą		_	_	ľ		_				r	_		_				-		_			1		
PDB ID		1cki					1d4v				Idan						1dan						1dan						Idva		
SEQ NO.		585					982				982						982						982						982		

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PDB annotation		HYDROLASE/HYDROLASE INHIBITOR PROTEIN-PEPTIDE COMPLEX	COMPLEMENT INHIBITOR VCP, SP35; COMPLEMENT, NMR, MODULES, PROTEIN STRUCTURE, VACCINIA VIRUS	MATRIX PROTEIN EXTRACELLULAR MATRIX, CALCIUM-BINDING, GLYCOPROTEIN, 2 REPEAT, SIGNAL, MULTIGENE FAMILY, DISEASE MUTATION, 3 EGF-LIKE DOMAIN, HUMAN FIBRILLIN-1 FRAGMENT, MATRIX PROTEIN	MATRIX PROTEIN EXTRACELLULAR MATRIX, CALCIUM-BINDING, GLYCOPROTEIN, 2 REPEAT, SIGNAL, MULTIGENE FAMILY, DISEASE MUTATION, 3 EGF-LIKE DOMAIN, HUMAN FIBRILLIN-1 FRAGMENT, MATRIX PROTEIN	SIGNALLING PROTEIN BINDING PROTEIN, CYTOKINE, SIGNALLING PROTEIN	BLOOD CLOTTING FACTOR VII, BLOOD COAGULATION, EGF-LIKE
Coumpound	CHAIN); CHAIN: L, M; (DPN)- PHE-ARG; CHAIN: C, D; PEPTIDE E-76; CHAIN: X, Y;	DES-GLA FACTOR VIIA (HEAVY CHAIN), CHAIN: H, I; DES-GLA FACTOR VIIA (LIGHT CHAIN); CHAIN: L, M; (DPN)- PHE-ARG; CHAIN: C, D; PEPTIDE E-76; CHAIN: X, Y;	COMPLEMENT CONTROL PROTEIN; CHAIN: A;	FIBRILLIN; CHAIN: NULL;	FIBRILLIN; CHAIN: NULL;	TUMOR NECROSIS FACTOR RECEPTOR; CHAIN: A, B;	BLOOD COAGULATION FACTOR VII; CHAIN: A;
SEQFOL D score							
PMF score		0.13	0.33	-0.19	0.06	0.01	0.75
Verify score		-0.02	0.18	0.09	-0.22	0.07	0.15
Psi Blast		6.8e-16	3.8e-17	1.7e-11	3.46-15	1.9e-10	5.7e-17
END		823	96	337	608	672	781
STAR T AA		738	3	257	738	533	741
CHAI N ID		1	¥			Ą	A
PDB UD		Idva	g591	lemn	lemn	lext	1f7e
SEQ NO:		982	286	982	982	982	982

PDB annotation	DOMAIN, BLOOD 2 CLOTTING		COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	COMPLEMENT INHIBITOR SP35, VCP, VACCINIA VIRUS SP35; COMPLEMENT INHIBITOR, COMPLEMENT MODULE, SCR, SUSHI DOMAIN, 2 MODULE PAIR	GLYCOPROTEIN GLYCOPROTEIN, HYDROLASE, SERINE PROTEASE, PLASMA, BLOOD 2 COAGULATION FACTOR	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN
Coumpound		GLYCOPROTEIN FACTOR H, 15TH AND 16TH C-MODULE PAIR (NMR, MINIMIZED 1HFHA 1 AVERAGED STRUCTURE) 1HFH 4 1HFHA 5	FACTOR IXA, CHAIN: C, L., D- PHE-PRO-ARG, CHAIN: I,	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	VACCINIA VIRUS COMPLEMENT CONTROL PROTEIN; CHAIN: NULL;	COAGULATION FACTOR X; CHAIN: NULL;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;
SEQFOL D score				·			
PMF score		0.23	0.11	0.05	-0.09	0.11	-0.13
Verify		0.03	-0.03	0.01	0.18	-0.30	0.04
Psi Blast		9.5e-16	1.3e-32	3.8e-29	1.7e-14	1.le-19	5.1e-10
END		96		830	96	814	441
STAR T AA		2	741	741	2	744	369
CHAI N ID			,	٦			J
PDB CI		1hfh	1pfx	lqfk	lvvc	lwhe	lxka
SEQ NO:		286	985	982	286	982	286

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PDB annotation	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN		COMPLEX (TRANSMEMBRANE/GLYCOPROTEI N) MHC GLYCOPROTEIN, COMPLEX (TRANSMEMBRANE/GLYCOPROTEI N)	COMPLEX (TRANSMEMBRANE/GLYCOPROTEI N) MHC GLYCOPROTEIN, COMPLEX (TRANSMEMBRANE/GLYCOPROTEI N)	COMPLEX (MHC PROTEIN/ANTIGEN) DRA, DRB1 01010; COMPLEX (MHC PROTEIN/ANTIGEN), HISTOCOMPATIBILITY ANTIGEN	COMPLEX (MHC PROTEIN/ANTIGEN) DRA, DRB1 01010; COMPLEX (MHC PROTEIN/ANTIGEN), HISTOCOMPATIBILITY ANTIGEN	IMMUNE SYSTEM HLA-DR2, MYELIN BASIC PROTEIN, MULTIPLE SCLEROSIS, 2 AUTOIMMUNITY, IMMUNE SYSTEM	IMMUNE SYSTEM HLA-DR2,
Coumpound	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	METALLOTHIONEIN METALLOTHIONEIN ISOFORM II 4MT2 3	HLA-DR3; CHAIN: A, B; CLIP; CHAIN: C;	HLA-DR3; CHAIN: A, B; CLIP; CHAIN: C;	HLA-DRI CLASS II HISTOCOMPATIBILITY PROTEIN; CHAIN: A, B, D, E, G, H, J, K; HLA-A2; CHAIN: C, F, I, L;	HLA-DRI CLASS II HISTOCOMPATIBILITY PROTEIN; CHAIN: A, B, D, E, G, H, J, K; HLA-A2; CHAIN: C, F, I, L;	HLA-DR2; CHAIN: A, D; HLA- DR2; CHAIN: B, E; HLA-DR2; CHAIN: C, F;	HLA-DR2; CHAIN: A, D; HLA-
SEQFOL D score			61.03		57.96		95.88	
PMF	90:0	0.07		0.39		0.58		0.58
Verify score	0.05	-0.46		90.0-		-0.34		-0.11
Psi Blast	1.9e-27	1.4e-09	1.4e-46	1.4e-46	1.4e-46	1.4e-46	8.5e-61	8.5e-61
END AA	831	617	202	201	201	201	202	202
STAR T AA	741	557	22	25	91	45	22	28
CHAI N ID	1		B	æ	æ	g	Ą	٨
EDB ID	lxka	4mt2	la6a	la6a	laqd	lagd	lbx2	1bx2
SEQ ID NO:	982	982	986	986	986	986	986	986

PDB annotation	MYELIN BASIC PROTEIN, MULTIPLE SCLEROSIS, 2 AUTOIMMUNITY, IMMUNE SYSTEM	IMMUNE SYSTEM HLA-DR2, MYELIN BASIC PROTEIN, MULTIPLE SCLEROSIS, 2 AUTOIMMUNITY, IMMUNE SYSTEM	IMMUNE SYSTEM HLA-DR2, MYELIN BASIC PROTEIN, MULTIPLE SCLEROSIS, 2 AUTOIMMUNITY, IMMUNE SYSTEM	IMMUNE SYSTEM MHC CLASS II DR2A	IMMUNE SYSTEM MHC CLASS II DR2A	IMMUNE SYSTEM RING6, HLA- DMA; RING7, HLA-DMB; HISTOCOMPATIBILITY PROTEIN, IMMUNE SYSTEM	HISTOCOMPATIBILITY ANTIGEN I- AK HISTOCOMPATIBILITY ANTIGEN, MHC, PEPTIDE COMPLEX
Coumpound	DR2; CHAIN: B, E; HLA-DR2; CHAIN: C, F;	HLA-DR2; CHAIN: A, D; HLA- DR2; CHAIN: B, E; HLA-DR2; CHAIN: C, F;	HLA-DR2; CHAIN: A, D; HLA- DR2; CHAIN: B, E; HLA-DR2; CHAIN: C, F;	MAJOR HISTOCOMPATIBILITY COMPLEX ALPHA CHAIN; CHAIN: A, D; MAJOR HISTOCOMPATIBILITY COMPLEX BETA CHAIN; CHAIN: B, E, MYELIN BASIC PROTEIN; CHAIN: C, F;	TBILITY IN;	CLASS II HISTOCOMPATIBILITY ANTIGEN, M ALPHA CHAIN: A; CLASS II HISTOCOMPATIBILITY ANTIGEN, M BETA CHAIN: B;	MHC CLASS II I-AK; CHAIN: A, B, P; HEN EGGWHITE LYSOZYME PEPTIDE
SEQFOL D score		59.12				282.05	106.84
PMF score			0.46	0.90	0.39		
Verify score			-0.39	-0.31	-0.50		
Psi Blast		1.7e-45	1.7e-45	3.4e-60	1.7e-46	3.4e.43	1e-61
END		204	201	202	201	207	202
STAR T AA		20	45	56	56	20	20
CHAI N ID		æ	æ	∢	д	¥	Ą
807 CI		1bx2	1bx2	1fv1	[fv]	1hdm	liak
SEQ ID	Ž	986	986	986	986	986	986

CHAI STAR	ST	# S	END	Psi Blast	Verify	PMF	SEQFOL D score	Coumpound	PDB annotation
37		8	Q	16-61	-0.12	1.00		MHC CLASS II I-AK; CHAIN: A, B, P; HEN EGGWHITE	HISTOCOMPATIBILITY ANTIGEN I- AK HISTOCOMPATIBILITY ANTIGEN MAY DEPTITION OF EY
В 23 20		72	201	1.5e-43			59.46	H. CCLASS IIAK; CHAIN: A, B, P; HEN EGGWHITE I.YSOZYME PEPTIDE	HISTOCOMPATIBILITY AK HISTOCOMPATIBILITY ANTIGEN MHC PEPTIDE COMPLEX
B 1 20	1 20	77	201	1.2e-43			58.50	MHC CLASS II I-AD; CHAIN: A, B;	MHC II MHC II, CLASS II MHC, I-A, OVALBUMIN PEPTIDE
A 21 2		22	203	5.1e-59			100.86	MHC CLASS II I-EK; CHAIN: A, B, C, D;	HISTOCOMPATIBILITY ANTIGEN HISTOCOMPATIBILITY ANTIGEN
A 27 20		2	203	5.1e-59	-0.28	0.95		MHC CLASS II I-EK; CHAIN: A, B, C, D;	HISTOCOMPATIBILITY ANTIGEN HISTOCOMPATIBILITY ANTIGEN
B 2 19		<u> </u>	661	3.4e-45			53.16	MHC CLASS II I-EK; CHAIN: A, B, C, D;	HISTOCOMPATIBILITY ANTIGEN HISTOCOMPATIBILITY ANTIGEN
B 1	1 15	=	199	3.4e-45			58.75	MHC CLASS II I-EK; CHAIN: A, B, C, D;	HISTOCOMPATIBILITY ANTIGEN HISTOCOMPATIBILITY ANTIGEN
B 51 19		=	199	3.4e-45	-0.34	0.21		MHC CLASS II I-EK; CHAIN: A, B, C, D;	HISTOCOMPATIBILITY ANTIGEN HISTOCOMPATIBILITY ANTIGEN
A 20 20		77	207	3.4e-61			109.34	MHC CLASS II I-AD; CHAIN: A, B;	MHC II MHC II, CLASS II MHC I-AD
A 37 2		7	206	3.4e-61	60.0	1.00		MHC CLASS II I-AD; CHAIN: A, B;	MHC II MHC II, CLASS II MHC I-AD
В 2 2		7	201	3.4e-44			59.80	MHC CLASS II I-AD; CHAIN: A, B;	MHC II, CLASS II MHC I-AD
A 52 .		10	214	1.9e-11	-0.43	0.60		RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RL-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS
A 49 13		13	130	3.8e-15	-0.29	0.89		U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA,

Z A B	a a a	NID	STAR T AA	END AA	Psi Blast	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
ë										SARATE PIRONITCI EOPROTEIN
,		-	١		,, ,,	100	,		O INTALIA THE GRANT ALKA OFF	SOLUTION OF TANK
	layn	∢	75	661	3.8e-14	0.10	0.40		UZ KNA HAIKPIN IV; CHAIN: Q, R; UZ A; CHAIN: A, C; UZ B"; CHAIN: B, D;	COMPLEA (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA,
-								····		SNRNP, RIBONUCLEOPROTEIN
287	la9n	ပ	49	145	3.8e-15	0.07	0.94		U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B";	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX
									CHAIN: B, D;	(NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN
987	la9n	ပ	52	199	5.7e-14	0.05	0.35		U2 RNA HAIRPIN IV; CHAIN: Q.	COMPLEX (NUCLEAR
									R; U2 A; CHAIN: A, C; U2 B";	PROTEIN/RNA) COMPLEX
									Chain: b, D;	SNRNP, RIBONUCLEOPROTEIN
287	lclg	Ą	231	493	5.1e-19	-0.72	0.03		TROPOMYOSIN; CHAIN: A, B,	CONTRACTILE PROTEIN
									J.	ALPHA-HELICAL, CONTRACTILE
										PROTEIN
786	140b	Ą	5	162	1.2e-18	0.33	86'0		INTERNALIN B; CHAIN: A;	CELL ADHESION LEUCINE RICH
										REPEAT, CALCIUM BINDING, CELL ADHESION
786	1dce	A	34	151	1.2e-14	0.27	99.0		RAB	TRANSFERASE CRYSTAL
									GERANYLGERANYLTRANSFE	STRUCTURE, RAB
									RASE ALPHA SUBUNIT;	GERANYLGERANYLTRANSFERASE,
									CHAIN: A, C; RAB	2.0 A 2 RESOLUTION, N-
									GERANYLGERANYLTRANSFE	FORMYLMETHIONINE, ALPHA
									RASE BETA SUBUNIT; CHAIN:	SUBUNIT, BETA SUBUNIT
987	1ds9	Ą	48	150	1e-14	-0.19	0.52		OUTER ARM DYNEIN; CHAIN:	CONTRACTILE PROTEIN LEUCINE.
									A;	RICH REPEAT, BETA-BETA-ALPHA
										CYLINDER, DYNEIN, 2
										CHLAMYDOMONAS, FLAGELLA
987	lds9	٧	20	155	3.8e-15	-0.08	0.55		OUTER ARM DYNEIN; CHAIN:	CONTRACTILE PROTEIN LEUCINE.
										RICH REPEAT, BETA-BETA-ALPHA CYLINDER. DYNEIN, 2

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PDB annotation	CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	TRANSCRIPTION RNAIP; RANGAP; GTPASE-ACTIVATING PROTEIN FOR SPII, GTPASE-ACTIVATING PROTEIN, GAP, RNAIP, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, MEROHEDRAL TWINNING,	TRANSFERASE CASEIN KINASE BETA SUBUNIT (I-182), SER/THR PROTEIN KINASE, 2 ZN FINGER	TRANSFERASE CASEIN KINASE BETA SUBUNIT (1-182), SEK/THR PROTEIN KINASE, 2 ZN FINGER		OXIDOREDUCTASE FERROCYTOCHROME CLOXYGEN OXIDOREDUCTASE; OXIDOREDUCTASE, CYTOCHROME(C)-OXYGEN, CYTOCHROME C 2 OXIDASE		TRANSCRIPTION TRANSFERASE, TRANSCRIPTION, DNA-DIRECTED RNA POLYMERASE, 3D- 2 STRUCTURE
Coumpound		HUMAN SKELETAL MÜSCLE ALPHA-ACTININ 2; CHAIN: A;	GTPASE-ACTIVATING PROTEIN RNA I_SCHPO; CHAIN: A, B;	CASEIN KINASE II; CHAIN: A, B;	CASEIN KINASE II; CHAIN: A, B;		CYTOCHROME C OXIDASE; CHAIN: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q,		DNA-DIRECTED RNA POLYMERASE; CHAIN: A, B; DNA-DIRECTED RNA POLYMERASE; CHAIN: C; DNA- DIRECTED RNA POLYMERASE; CHAIN: D; DNA-DIRECTED
SEQFOL D score		72.54							
PMF score		! 	0.13	1.00	1.00		0.07		96:0
Verify			-0.14	0.46	0.46		0.10		-0.22
Psi Blast		7.6e-07	1.9e-12	3.8e-56	6.8e-51		8.5e-29		0
END AA		491	210	123	123		141		1076
STAR T AA		236	57	7	7		73		-
CHAI N ID		A	Ą	Ą	Ą		н		ပ
PDB ID		1quu	Гутв	1qf8	1qf8		20cc		1ddq
SEQ ID NO:		987	987	166	166		993		994

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PDB annotation			TRANSCRIPTION REGULATION PROTO-ONCOGENE, NUCLEAR BODIES (PODS), LEUKEMIA, 2 TRANSCRIPTION REGULATION			LIGASE CBL, UBCH7, ZAP-70, E2,	UBIQUITIN, E3,	PHOSPHORYLATION, 2 TYROSINE	PROTEIN DEGRADATION,		LIGASE CBL, UBCH7, ZAP-70, E2,	PHOSPHORYLATION, 2 TYROSINE	KINASE, UBIQUITINATION,	PROTEIN DEGRADATION,	ZINC-BINDING PROTEIN ZINC-	BINDING PROTEIN, XNF7, BBOX,	TRANSITION	METAL BINDING PROTEIN RING	FINGER PROTEIN MATI; RING FINGER (C3HC4)	DNA-BINDING PROTEIN V(D)J
Coumpound	RNA POLYMERASE; CHAIN: E;		TRANSCRIPTION FACTOR PML; CHAIN: NULL;	VIRUS EQUINE HERPES VIRUS- I (C3HC4, OR RING DOMAIN) ICHC 3 (NMR, I STRUCTURE) ICHC 4	VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN) 1CHC 3 (NMR, 1 STRUCTURE) 1CHC 4	SIGNAL TRANSDUCTION	PROTEIN CBL; CHAIN: A; ZAP-	10 PEPTIDE; CHAIN: B;	ENZYME E12-18 KDA UBCH7;	CHAIN: C;	SIGNAL TRANSDUCTION PROTEIN CBI - CHAIN: 4 - 7 AP.	70 PEPTIDE; CHAIN: B;	UBIQUITIN-CONJUGATING	ENZYME E12-18 KDA UBCH7; CHAIN: C;	NUCLEAR FACTOR XNF7;	CHAIN: NULL;		CDK-ACTIVATING KINASE	ASSEMBLY FACTOR MATI; CHAIN: A;	RAG1; CHAIN: NULL;
SEQFOL D score																				
PMF			0.05	0.59	0.47	0.52		ı			0:30				0.03			0.46		0.49
Verify score			-0.39	0.29	-0.45	-0.04					-0.46				-0.11			-0.33		0.13
Psi Blast			1.4e-08	1.7e-12	5.7e-12	5.1e-10					3.8e-09				3.4e-05			0.00017		1.le-16
END			20	51	09	51					09			_	134			57		100
STAR T AA			2	10	9	01					6				86			9		4
CHAI N ID						Ą			_		Ą		_					A		
PDB ID			1bor	1chc	1chc	1fbv					1fbv				1fre			1g25		lrmd
SEQ TO NO:			995	995	995	995					995				995			995		995

PDB annotation	RECOMBINATION ACTIVATING PROTEIN 1; RAG1, V(D)J RECOMBINATION, ANTIBODY, MAD, RING FINGER, 2 ZINC BINUCLEAR CLUSTER, ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (TRANSCRIPTION REGULATIONDNA) SREBP-1A; STEROL REGULATORY ELEMENT BINDING PROTEIN, 2 BASIC-HELIX- LOOP-HELIX-LEUCINE ZIPPER, SREBP, TRANSCRIPTION COMPLEX (TRANSCRIPTION	COMPLEX (DNA-BINDING PROTEIN/DNA) MYN PROTEIN; MAX, DNA BINDING, BASIC-HELIX- LOOP-HELIX-LEUCINE ZIPPER, 2 TRANSCRIPTION FACTOR, COMPLEX (DNA-BINDING PROTEIN/DNA)	COMPLEX (TRANSCRPTION FACTOR MAXIDNA) TRANSCRIPTIONAL REGULATION, DNA BINDING, COMPLEX 2 (TRANSCRPTION FACTOR MAXIDNA)	COMPLEX (TRANSCRIPTION FACTOR MAX/DNA) TRANSCRIPTIONAL REGULATION, DNA BINDING, COMPLEX 2 (TRANSCRIPTION FACTOR MAX/DNA)
Coumpound		STEROL REGULATORY ELEMENT BINDING PROTEIN 1A; CHAIN: A, B, C, D; DNA; CHAIN: E, F, G, H;	MAX PROTEIN; CHAIN: A, C; DNA; CHAIN: B, D;	TRANSCRIPTION FACTOR MAX; CHAIN: A, B; DNA (5'- D(*CP*AP*CP*CP*AP*CP*GP*T P*GP*GP*T)-3', CHAIN: C, D;	TRANSCRIPTION FACTOR MAX; CHAIN: A, B; DNA (5'- D(*CP*AP*CP*CP*AP*CP*GP*T P*GP*GP*T)-3', CHAIN: C, D;
SEQFOL D score					
PMF score		0.01	0.01	0.10	0.19
Verify score		-0.25	-0.60	-0.26	-0.32
Psi Blast		7.6e-09	3.8e-15	1.9e-13	1.9e-12
END		345	354	343	343
STAR T AA		277	277	268	277
CHAI N ID		В	A	∢	M
PDB ID		lam9	lan2	1hlo	1hlo
SEQ ID NO:		966	966	966	966

8 8 8	CHAI	I STAR T AA	END	Psi Blast	Verify score	PMF	SEQFOL D score	Coumpound	PDB annotation
1 byu	¥	17	139	5.Ie-46	-0.02	0.64		GTP-BINDING PROTEIN RAN; CHAIN: A, B;	TRANSPORT PROTEIN TC4; GTPASE, NUCLEAR TRANSPORT, TRANSPORT PROTEIN
16yu	æ	13	139	1.2e-46	0.17	0.72		GTP-BINDING PROTEIN RAN; CHAIN: A, B;	TRANSPORT PROTEIN TC4; GTPASE, NUCLEAR TRANSPORT, TRANSPORT PROTEIN
1cc0	∢	ន	140	3.4e-47	-0.23	0.96		TRANSFORMING PROTEIN RHOA; CHAIN: A, C; RHO GDP DISSOCIATION INHIBITOR ALPHA; CHAIN: E, F;	SIGNALING PROTEIN GTP-BINDING PROTEIN RHOA, GTPASE RHOA; RHO GDI 1; RHO GTPASE, G- PROTEIN, SIGNALING PROTEIN
1cxz	₹	23	140	1e-47	-0.14	86.0		HIS-TAGGED TRANSFORMING PROTEIN RHOA(0-181); CHAIN: A; PKN; CHAIN: B;	SIGNALING PROTEIN PROTEIN- PROTEIN COMPLEX, ANTIPARALLEL COILED-COIL
1dSc	Ą	22	143	1.4e-49	0.14	0.84		RAB6 GTPASE; CHAIN: A;	ENDOCYTOSIS/EXOCYTOSIS G- PROTEIN, GTPASE, RAB6, VESICULAR TRAFFICKING
1486	∢	22	140	8.5e-49	-0.05	0.88		RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 2; CHAIN: A; RHO GDP-DISSOCIATION INHIBITOR 2; CHAIN: B;	SIGNALING PROTEIN P21-RAC2; RHO GDI 2, RHO-GDI BETA, LY-GDI; BETA SANDWHICH, PROTEIN- PROTEIN COMPLEX, G-DOMAIN, 2 IMMUNOGLOBULIN FOLD, WALKER FOLD, GTP-BINDING PROTEIN
libr	∀	20	145	1.4e-45			68.78	RAN; CHAIN: A, C; IMPORTIN BETA SUBUNIT; CHAIN: B, D;	SMALL GTPASE KARYOPHERIN BETA, P95 SMALL GTPASE, NUCLEAR TRANSPORT RECEPTOR
1mh1		17	145	5.1e-50			52.24	RACI; CHAIN: NULL;	GTP-BINDING GTP-BINDING, GTPASE, SMALL G-PROTEIN, RHO FAMILY, RAS SUPER 2 FAMILY
1mh1		22	140	5.1e-50	-0.12	0.87	ı	RACI; CHAIN: NULL;	GTP-BINDING GTP-BINDING, GTPASE, SMALL G-PROTEIN, RHO FAMILY, RAS SUPER 2 FAMILY
117	0	61	145	1.4e-45			65.13	RAN; CHAIN: A, C; NUCLEAR	COMPLEX (SMALL

PDB annotation	GTPASE/NUCLEAR PROTEIN) COMPLEX (SMALL GTPASE/NUCLEAR PROTEIN), SMALL GTPASE, 2 NUCLEAR TRANSPORT	COMPLEX (GTP- BINDING/EFFECTOR) RAS-RELATED PROTEIN RAB3A; COMPLEX (GTP- BINDING/EFFECTOR), G PROTEIN, EFFECTOR, RABCDR, 2 SYNAPTIC EXOCYTOSIS, RAB PROTEIN, RAB3A, RABPHILIN	COMPLEX (GTP- BINDING/EFFECTOR) RAS-RELATED PROTEIN RAB3A; COMPLEX (GTP- BINDING/EFFECTOR), G PROTEIN, EFFECTOR, RABCDR, 2 SYNAPTIC EXOCYTOSIS, RAB PROTEIN, RAB3A, RABPHILIN	HYDROLASE CDC42/CDC42GAP; CDC42/CDC42GAP; TRANSITION STATE, G-PROTEIN, GAP, CDC42, ALF3., HYDROLASE	HYDROLASE G PROTEIN, VESICULAR TRAFFICKING, GTP HYDROLYSIS, RAB 2 PROTEIN, NEUROTRANSMITTER RELEASE, HYDROLASE	HYDROLASE G PROTEIN, VESICULAR TRAFFICKING, GTP HYDROLYSIS, RAB 2 PROTEIN, NEUROTRANSMITTER RELEASE, HYDROLASE
Coumpound	PORE COMPLEX PROTEIN NUP358; CHAIN: B, D;	RABPHILIN-3A; CHAIN: B;	RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B;	GTP BINDING PROTEIN (G25K); CHAIN: A; GTPASE ACTIVATING PROTEIN (RHG); CHAIN: B;	RAB3A; CHAIN: A;	RAB3A; CHAIN: A;
SEQFOL D score		54.15				64.11
PMF score			0.78	0.89	0.88	
Verify score			0.17	-0.07	0.19	
Psi Blast		1.76-53	1.7e-53	3.4e-46	5.1e-55	5.1e-55
END		144	143	141	143	145
STAR T AA		17	18	22	17	17
CHAI N ID		∢	∀	¥.	∢	A
PDB 1D		1zbd	1zbd	2ngr	3rab	3rab
SEQ B S		997	997	997	766	. 266

KINASE KINASE, SIGNAL TRANSDUCTION, CALCIUM/CALMODULIN				TRANSFERASE KINASE DOMAIN, AUTOINHIBITORY FRAGMENT, HOMODIMER	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	KINASE RABBIT MUSCLE PHOSPHORYLASE KINASE:
CALCIUM/CALMODULIN- DEPENDENT PROTEIN KINASE; CHAIN: NULL;	TRANSFERASE(PHOSPHOTRA NSFERASE) \$C-/AMP\$- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (\$C/APK\$) 1APM 3 (CATALYTIC SUBUNIT) ALPHA ISOENZYME MUTANT WITH SER 139 1APM 4 REPLACED BY ALA (/S139A\$) COMPLEX WITH THE PEPTIDE 1APM 5 INHIBITOR PKI(5-24) AND THE DETERGENT MEGA-8 1APM 6	PHOSPHOTRANSFERASE CAMP-DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT ICMK 3 (E.C.2.7.1.37) ICMK 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3 (CATALYTIC SUBUNIT) 1CTP 4	SERINE/THREONINE-PROTEIN KINASE PAK-ALPHA; CHAIN: A, B; SERINE/THREONINE- PROTEIN KINASE PAK-ALPHA; CHAIN: C, D;	TWITCHIN; CHAIN: NULL;	TWITCHIN; CHAIN: A, B;	PHOSPHORYLASE KINASE; CHAIN: NULL:
0.16	0.53	0.47	0.78	0.51	0.37	0.72	0.80
-0.20	-0.21	-0.17	-0.02	-0.02	-0.02	-0.02	0.13
1.7e-50	5.1e-66	5.1e-66	1.2e-60	3.4e-53	1.2c-38	1.2e-40	3.4e-54
174	175	175	161	160	169	1.69	140
-	-	-		••••	_	1	
	Д	B	Ξ	ပ		Ą	
1a06	lapm	lcmk	1ctp	113m	Ikoa	1kob	Iphk
866	866	866	866	866	866	866	866
	1206 1 174 1.7e-50 -0.20 0.16 CALCIUM/CALMODULIN- KINASE KINASE, SIGNAL DEPENDENT PROTEIN KINASE; TRANSDUCTION, CHAIN: NULL; CALCIUM/CALMODULIN	1906 1 174 1.7e-50 -0.20 0.16 CALCIUM/CALMODULIN- KINASE KINASE, SIGNAL 1908 E 1 175 5.1e-66 -0.21 0.53 TRANSFERASE(PHOSPHOTRA 1909 E 1 175 5.1e-66 -0.21 0.53 TRANSFERASE(PHOSPHOTRA 1909 NSFERASE) \$C-/AMP\$- 1909 DEPENDENT PROTEIN KINASE 1909 CALCIUM/CALMODULIN 1	1906 1 174 1.7e-50 -0.20 0.16 CALCIUM/CALMODULIN- KINASE KINASE, SIGNAL 14pm E	144 1.76-50 0.16 DEPENDALIN- KINASE KINASE, SIGNAL 14pm E	1406 1 174 1.7e-50 0.16 CALCIUM/CALMODULIN- 14pm E 1 175 5.1e-66 -0.21 0.53 TRANSFERASE(PHOSPHOTRA 14pm E 1 175 5.1e-66 -0.21 0.53 TRANSFERASE(PHOSPHOTRA 15pm E 1 175 5.1e-66 -0.21 0.53 TRANSFERASE(PHOSPHOTRA 15pm E 1 175 5.1e-66 -0.17 0.47 CATALYTIC SUBUNIT) ALPHA 15pm E 1 175 5.1e-66 -0.17 0.47 CATALYTIC SUBUNIT 15pm E 1 16l 1.2e-60 -0.02 0.78 TRANSFERASE 15pm C 1 160 3.4e-53 -0.02 0.51 SERINSTREASE CALALYTIC SUBUNIT 15pm CATALYTIC SUBUNIT COMM	1406 1 174 1.7e-50 0.16 CALCIUM/CALMODULIN' 14pm E	1406 1 174 1.7e-50 0.16 CALCIUM/CALMODULIN- 1400 1 175 5.1e-66 -0.21 0.53 TRANSFERASE(PHOSPHOTRA 1401 E 1 175 5.1e-66 -0.21 0.53 TRANSFERASE(PHOSPHOTRA 150 1.2e-60 -0.17 0.47 TRANSFERASE(PHOSPHOTRA 150 E 1 175 5.1e-66 -0.17 0.47 TRANSFERASE 150 E 1 161 1.2e-60 -0.02 0.78 TRANSFERASE 150 1.2e-60 -0.02 0.78 TRANSFERASE 150 1.2e-60 -0.02 0.78 TRANSFERASE 150 1.2e-60 -0.02 0.78 TRANSFERASE 150 1.2e-60 -0.02 0.78 TRANSFERASE 150 1.2e-50 0.51 TRANSFERASE 150 1.2e-50 0.51 TRANSFERASE 150 1.2e-50 0.51 TRANSFERASE 150 1.2e-50 0.51 TRANSFERASE 150 1.2e-50 0.51 TRANSFERASE 150 1.2e-50 0.51 TRANSFERASE 150 1.2e-38 -0.02 0.51 TRANSFERASE 150 1.2e-38 -0.02 0.51 TRANSFERASE 150 1.2e-38 -0.02 0.51 TRANSFERASE 150 1.2e-40 -0.02 0.72 TRANSFERASE 150 1.2e-40 -0.02 0.73 TRANSFERASE 150 1.2e-40 -0.02 0.72 TRANSFERASE 150 1.2e-40 -0.0

PDB annotation	GLYCOGEN METABOLISM, TRANSFERASE, SERINE/THREONINE-PROTEIN, 2 KINASE, ATP-BINDING CALMODULIN-BINDING	SERINE KINASE SERINE KINASE, TITIN, MUSCLE, AUTOINHIBITION	SERINE KINASE SERINE KINASE, TITIN, MUSCLE, AUTOINHIBITION	B; INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION		H GROWTH FACTOR/GROWTH B; FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	H GROWTH FACTOR/GROWTH B; FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	H GROWTH FACTOR/GROWTH B; FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL ; CHAIN: TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	
Coumpound		TITIN; CHAIN: A, B;	TITIN; CHAIN: A, B;	HEMOLIN; CHAIN: A, B;	AXONIN-1; CHAIN: A;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	
SEQFOL D score				ļ					
PMF		0.75	0.25	0.40	0.10	0.15	0.21	-0.03	_
Verify score		0.18	-0.12	0.28	60.0	0.08	0.15	0.03	
Psi Blast		1.7e-34	1.9e-34	1.7e-27	3.4e-34	3.4e-25	5,1e-36	1.2e-26	
END AA		149	186	283	283	166	284	199	
STAR T AA		-		01	29	21	112	21	
CHAI		¥	4	V .	∢	O	Ω	Ω	
PDB ID		1tki	1tki	1bih	1cs6	lcvs	levs	Icvs	
SEQ ID NO:		866	866	1000	1000	1000	1000	1000	

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PDB annotation	IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	IMMUNE SYSTEM FC-EPSILON RI- ALPHA; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM FC-EPSILON RI- ALPHA; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM HIGH AFFINITY IGE-FC RECEPTOR, FC(EPSILON) IGE-FC, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE-BINDING 2 PROTEIN, IGE ANTIBODY, IGE-FC	IMMUNE SYSTEM HIGH AFFNITY IGE-FC RECEPTOR, FC(EPSILON) IGE-FC; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN, IGE	IMMUNE SYSTEM, MEMBRANE PROTEIN CD32; FC RECEPTOR, IMMUNOGLOULIN, LEUKOCYTE, CD32	IMMUNE SYSTEM, MEMBRANE PROTEIN CD32; FC RECEPTOR, IMMUNOGLOULIN, LEUKOCYTE, CD32	IMMUNE SYSTEM RECEPTOR BETA
Coumpound	MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A; IG EPSILON CHAIN C REGION; CHAIN: B, D;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A; IG EPSILON CHAIN C REGION; CHAIN: B, D;	FC RECEPTOR FC(GAMMA)RIIA; CHAIN: A;	FC RECEPTOR FC(GAMMA)RIIA; CHAIN: A;	LOW AFFINITY
SEQFOL D score									
PMF score		-0.09	0.31	0.22	0.57	0.12	-0.12	0.41	90.0
Verify score		0.11	0.12	0.00	0.31	-0.04	0.15	0.23	0.05
Psi Blast		3.4e-24	1.7e-19	3.4e-28	le-17	1.4e-27	1.7e-19	5.1e-29	3.4e-17
END AA		201	281	208	281	207	281	205	281
STAR T AA		33	117	28	116	26	115	26	114
CHAI N ID		Ą	A	Ą	∢	¥	Ą	¥	A
FDB ID		lepf	1129	b731	1f6a	1f6a	lfcg	lfcg	Iful
SEQ ID NO:		1000	1000	1000	1000	1000	1000	1000	1000

PDB annotation	SANDWICH, IMMUNOGLOBULIN- LIKE, RECEPTOR	IMMUNE SYSTEM RECEPTOR BETA SANDWICH, IMMUNOGLOBULIN-LIKE, RECEPTOR	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	MUSCLE PROTEIN CONNECTIN, NEXTM5; CELL ADHESION, GLYCOPROTEIN,	TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD, ALTERNATIVE SPLICING, SIGNAL, 3	MUSCLE PROTEIN	INHIBITORY RECEPTOR KILLER CELL INHIBITORY RECEPTOR:	INHIBITORY RECEPTOR, NATURAL KILLER CELLS. IMMINOLOGICAL 2	RECEPTORS, IMMUNOGLOBULIN	FOLD	INHIBITORY RECEPTOR KILLER CELL INHIBITORY RECEPTOR;	INHIBITORY RECEPTOR, NATURAL	KILLER CELLS, IMMUNOLOGICAL 2	RECEPTORS, IMMUNOGLOBULIN FOLD	INHIBITORY RECEPTOR KILLER	CELL INHIBITORY RECEPTOR;	KILLER CELLS, IMMUNOLOGICAL, 2	RECEPTORS, IMMUNOGLOBULIN	FOLD	INHIBITORY RECEPTOR KILLER CELL INHIBITORY RECEPTOR;
Coumpound	IMMUNOGLOBULIN GAMMA FC REGION CHAIN: A;	LOW AFFINITY IMMUNOGLOBULIN GAMMA FC REGION CHAIN: A;	TWITCHIN; CHAIN: NULL;	TITIN; CHAIN: NULL;			P58-CL42 KIR; CHAIN: NULL;				P58-CL42 KIR; CHAIN: NULL;				P58-CL42 KIR; CHAIN: NULL;					P58-CL42 KIR; CHAIN: NULL;
SEQFOL D score		÷													71.59					
PMF score		0.58	0.33	-0.15			0.76				0.22									0.87
Verify score		0.07	0.35	0.47			0.20		•		-0.51									0.22
Psi Blast		1.5e-24	5.1e-12	3.4e-13			3.4e-29				6.8e-13				1e-30					1e-30
END		206	284	284			282	·			113				216					204
STAR T AA		24	207	213			117				12				27					28
CHAI N ID		∢ ,									-									•
PD B TD		1fhl	1koa	Inct			lnkr				눻				1nkr					1nkr
SEQ ID NO:		1000	1000	0001			1000				000				1000					1000

PDB annotation	INHIBITORY RECEPTOR, NATURAL KILLER CELLS, IMMUNOLOGICAL 2 RECEPTORS, IMMUNOGLOBULIN FOLD		IMMUNOGLOBULIN ANTI- NITROPHENOL, LAMBDA LIGHT CHAIN, IMMUNOGLOBULIN	IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULIN	IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULIN	IMMUNE SYSTEM CD32; RECEPTOR, PC, CD32, IMMUNE SYSTEM	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM	HYDROLASE C2 DOMAIN, PHOSPHOTIDYLINOSITOL, PHOSPHOTASE, HYDROLASE	HYDROLASE C2 DOMAIN, PHOSPHOTIDYLINOSITOL, PHOSPHOTASE, HYDROLASE
Coumpound		MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) 1TNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) 1TNM 4 1TNM 58	FAB FRAGMENT; CHAIN: NULL;	MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	FC GAMMA RIIB; CHAIN: A;	FC GAMMA RIIB; CHAIN: A;	PHOSPHOINOSITIDE PHOSPHOTASE PTEN; CHAIN: A;	PHOSPHOINOSITIDE PHOSPHOTASE PTEN; CHAIN: A;
SEQFOL D score			54.09						
PMF		-0.18		0.51	0.74	-0.08	0.55	0.07	0.07
Verify		0.37		0.22	0.23	0.26	0.03	-0.64	-0.64
Psi Blast		3.4e-13	8.5e-07	3.4e-29	5.1e-29	5.1e-20	3.4 c -29	0.0019	0.0019
END AA		284	236	282	203	281	206	344	262
STAR T AA		213	28	117	26	1115	56	291	209
CHAI N ID			Ξ	∢	⋖	∢	<	₹	A
PDB ID		14mm	1 yuh	2dli	2dli	2fcb	2fcb	1d5r	1d5r
SEQ NO:		1000	1000	1000	0001	1000	1000	1001	1003

PDB annotation	HYDROLASE C2 DOMAIN, PHOSPHOTIDYLINOSITOL, BLOCEBLOTACE LINDROLACE	THOSE HOLDS HID NOT ASE	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HEI ICAI I INKER REGION 22	TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO DEBEATS OF SPECTBIN AT BUA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELLIX COILED-COILS,	STRUCTURAL PROTEIN	ENDOCYTOSIS/EXOCYTOSIS	NSECI; PROTEIN-PROTEIN	COMPLEY (MA DINING	PROTEIN/NAV TIS. TEP. DNA	BINDING, DNA REPLICATION, 2	COMPLEX (DNA-BINDING	PROTEIN/DNA)	MEMBRANE PROTEIN FOUR HELIX	BUNDLE, ALPHA HELIX	MEMBRANE PROTEIN FOUR HELLY RINDLE ALPHA HELIX	CONTRACTILE PROTEIN TRIPLE-	HELIA COLLIN COLL,
Coumpound	PHOSPHOINOSITIDE PHOSPHOTASE PTEN; CHAIN:	Ą,	ALPHA SPECTRIN; CHAIN: A, B, C;		ALPHA SPECTRIN; CHAIN: A,	ິ່ງ ລົ		ALPHA SPECTRIN; CHAIN: A,	В, С;				SYNTAXIN BINDING PROTEIN	1; CHAIN: A; SYNTAXIN 1A;	PEDI ICATION TEPANNATOR	PROTEIN: CHAIN: A: DNA	16MER DUPLEX REPLICATION	TERMINATOR; CHAIN: B, C;		SSOI PROTEIN; CHAIN: A;		SSO1 PROTEIN; CHAIN: A;	HUMAN SKELETAL MUSCLE AT PHA_ACTININ 2: CHAIN: 4:	יה ייונתוט לי יוויוון להיהול וחלה
SEQFOL D score										•														
PMF score	0.07		-0.03		0.13			0.23					0.01		000	3				0.00		-0.12	0.05	
Verify	-0.64		0.04		-0.08			-0.12					-0.32		190	, ,				0.00		0.02	-0.31	
Psi Blast	0.0019		5.7e-16		1.5e-16			1.7e-13					5.7e-18		0.0013	0.00.0	-			3.8e-11		7.6e-11	1.1e-22	
END	344		396		429			505					470		288	007				329		401	370	
STAR T AA	291		164		213			293					236		15	5				133		217	75	
CHAI N ID	V V		¥		A			Ą					20		\	¢	_	_		∢		∢.	Ą	
PDB ID	1d5r		lcun		Icun			lcun					Idul		1	3				1fio		1fio	Iquu	1
SEQ ID NO:	1004		1010		1010			1010					010I ₀		1010	2				1010		1010	1010	

PDB annotation	CONTRACTILE PROTEIN				TRANSMEMBRANE PROTEIN	CHANNEL FORMATION,	TRANSMEMBRANE 2 PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS,	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS,	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS,	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS,	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO
Coumpound		DEFENSIN DEFENSIN /HNP\$-3 1DFN 3	DEFENSIN DEFENSIN /HNP\$-3 1DFN 3	DEFENSIN DEFENSIN /HNP\$-3 IDFN 3	COLICIN IA; CHAIN: NULL;			ALPHA SPECTRIN; CHAIN: A,	ပ်ာ်				ALPHA SPECTRIN; CHAIN: A,	ဗိ				ALPHA SPECTRIN; CHAIN: A,	ည်း				ALPHA SPECTRIN; CHAIN: A,	B, C;				ALPHA SPECTRIN; CHAIN: A,
SEQFOL D score		59.97			148.75																							
PMF score			1.00	1.00				-0.09					0.17					0.04					-0.02					0.30
Verify score			-0.35	-0.35				0.12					90.0					0.11					0.44					-0.09
Psi Blast		1.1e-12	I.Ie-12	3.4e-11	5.7e-59			3.8e-15					1.9e-15					3.8e-21					1.9e-19					1.9e-09
END		138	138	138	929			394					447					583					634					284
STAR T AA		109	110	110	4			190					218					345					419					50
CHAI N ID		V	А	¥				Ą		•			A					4					٨					A
PDB ID		1dfn	1dfn	ıdfn	Icii			Icun					Icun					Icun					Icun					1cun
SEQ NO.		1013	1013	1013	1014			1014					1014					1014					1014					1014

PDB annotation	REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COLLED-COLLS, STRUCTURAL PROTEIN	SIGNALING PROTEIN GUANINE NUCLEOTIDE- BINDING PROTEIN 1; GBP, GTP HYDROLYSIS, GDP, GMP, INTERFERON INDUCED, DYNAMIN 2 RELATED, LARGE GTPASE FAMILY, SIGNALING PROTEIN	ENDOCYTOSIS/EXOCYTOSIS NSEC1; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS NSEC1; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS NSEC1; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	MEMBRANE PROTEIN FOUR HELIX BUNDLE, ALPHA HELIX	CHAPERONE ARCHAEAL PROTEIN	CHAPERONE ARCHAEAL PROTEIN	CHAPERONE ARCHAEAL PROTEIN
Coumpound	в, с;	ALPHA SPECTRIN; CHAIN: A, B, C;	INTERFERON-INDUCED GUANYLATE-BINDING PROTEIN 1; CHAIN: A;	SYNTAXIN BINDING PROTEIN 1; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	SYNTAXIN BINDING PROTEIN 1; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	SYNTAXIN BINDING PROTEIN 1; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	SSOI PROTEIN; CHAIN: A;	PREFOLDIN; CHAIN: A; PREFOLDIN; CHAIN: B; PREFOLDIN; CHAIN: C;	PREFOLDIN; CHAIN: A; PREFOLDIN; CHAIN: B; PREFOLDIN; CHAIN: C;	PREFOLDIN; CHAIN: A; PREFOLDIN; CHAIN: B;
SEQFOL D score										
PMF score		0.12	0.17	-0.07	0.23	0.66	-0.17	0.01	0.15	0.22
Verify score		-0.06	-0.16	0.07	-0.04	0.02	0.01	80.0	0.00	0.26
Psi Blast		5.7e-10	0.0057	1.5e-18	5.7e-26	1.7e-09	1.9e-11	1.9e-05	3.8e-07	1.9e-05
END		741	307	509	. 598	733	518	422	513	578
STAR T AA		525	55	297	370	484	361	308	391	472
CHAI N ID	 	A	V	æ	B	В	Ą	၁	ပ	ပ
PDB ID		1cun	1dg3	1dn1	1dn1	1dn1	1fio	1fxk	15xk	15xk
SEQ ID NO:		1014	1014	1014	1014	1014	1014	1014	1014	1014

	CHAI	STAR T AA	END	Psi Blast	Verify	PMF score	SEQFOL D score	Coumpound	PDB annotation
Щ.									
-	ļ			22000	į	;		PREFOLDIN; CHAIN: C;	
	ပ	252	635	0.00057	0.21	0.11		PREFOLDIN; CHAIN: A; PREFOLDIN; CHAIN: B; PREFOLDIN; CHAIN: C;	CHAPERONE ARCHAEAL PROTEIN
 	∢	272	549	1.1e-24	0.15	0.07		HUMAN SKELETAL MÜSCLE ALPHA-ACTININ 2; CHAIN: A;	CONTRACTILE PROTEIN TRIPLE- HELIX COLLED COLL, CONTRACTILE PROTEIN
 	4	321	580	1.3e-32	0.48	0.01		HUMAN SKELETAL MÜSCLE ALPHA-ACTININ 2; CHAIN: A;	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN
 	∀	359	630	7.6e-27	0.20	0.15		HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	CONTRACTILE PROTEIN TRIPLE- HELIX COLLED COIL, CONTRACTILE PROTEIN
-	4	471	746	3.8e-17	-0.05	0.03		HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN
	Ą	18	398	3.8e-15	-0.06	0.03		HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN
-		2,5	9	, 2, 2,	,,,	9,0		nemana and an olde door	CARROLINE OF ATT ATT AND TOO
	∢	349	429	1.26-23	-0.31	0.62		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B. C:	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN
	Ą	378	468	1.7e-24	0.01	-0.06		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN
	∢	405	498	1.7e-26	0.11	0.03		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN
	A	472	555	1e-27	-0.37	0.28		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA),

PDB annotation	ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING	PROTEIN	COMPLEX (ZINC FINGER/DNA)	ZINC FINGER, DNA-BINDING	INCIPIN					COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA
Соитроила	OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	OLIGONUCLEOTIDE BINDING	DAIA DRIMING DECTED	HUMAN ENHANCER-BINDING	PROTEIN MBP-1 MUTANT WITH CVS 11 19BO 3	REPLACED BY ABILICITABLE	(NMR, 60 STRUCTURES) IBBO	DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSOS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER
SEQFOL D score										-						•										
PMF score		0.10		0.87		010	5				0.81					0.72					0.82					0.95
Verify score		0.34		0.10		970	2				-0.12					-0.01					-0.01					-0.25
Psi Blast		3.4e-30		3.4e-30		1 72 10	01-27:1				1.7e-41					1.7e-42					1.7e-45					5.1e-47
END		981		1010		732	5		_		429			•		468					496					527
STAR T AA		. 106		929	•	202	3				349					374					404					443
CHAI N ID		A		¥	•						၁					ပ					ပ					ပ
PDB ID		lalh		la1h		1,4,6	3				lmey					lmey					Imey					1mey
SEQ ID NO:		1015		1015		1016	}	_			1015					1015					1015					1015

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Coumpound PDB annotation		PROTEIN; CHAIN: C, F, G; CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	DNA; CHAIN: A, B, D, E; COMPLEX (ZINC FINGER/DNA) ZINC		_	(ZINC FINGER/DNA)		~	FROIEIN; CHAIN: C, F, G; CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	DNA; CHAIN: A, B, D, E; COMPLEX (ZINC FINGER/DNA) ZINC	ER	PROTEIN; CHAIN: C, F, G; INTERACTION, PROTEIN DESIGN, 2		(ZINC FINGER/DNA)	DNA; CHAIN: A, B, D, E, COMPLEX (ZINC FINGER/DNA) ZINC	CONSENSUS ZINC FINGER FINGER, PROTEIN-DNA	PROTEIN; CHAIN: C, F, G; INTERACTION, PROTEIN DESIGN, 2		(ZINC FINGER/DNA)		~	PROTEIN: CHAIN: C. F. G. INTERACTION, PROTEIN DESIGN, 2					ER			
FOL	ore ——	PROTEI	DNA; C	PROTEI			DNA; C	CONSE	rrole		DNA; C	CONSE	PROTE		1-	DNA; C	CONSE	PROTE			DNA; C	CONSE	PROTEI				DNA; C	DNA; C CONSE	DNA; C CONSEI PROTEI	DNA; C CONSEI PROTEI	DNA; C CONSE PROTEI
SEQFOL	D score										_								_					•		_		-			
PMF	score		06.0				-0.14				-0.20					-0.15					0.51						0.88	0.88	0.88	0.88	0.88
Verify	score		-0.26				0.01				0.02					0.12					0.25	,					-0.07	-0.07	-0.07	-0.07	-0.07
Psi Blast			3.4e-46				1.5e-36				6.8e-44					5.1e-45					3.4e-50						3.4e-50	3.4e-50	3.4e-50	3.4e-50	3.4e-50
GNE	¥		556				612				778					953					186						1010	1010	0101	1010	1010
STAR	I AA		471				230				869					840					106						928	928	928	928	928
CHAI	= = =		ပ				၁				C					၁					2				-		ပ	ပ	ပ	O	O
PDB	=		Imey				lmey				lmey			-	_	Imey					1mey						Imey		+	·	· .
SEQ	ΞÖ		1015				1015				1015					1015					1015						1015	1015	1015	1015	1015

	× , 2	NC X	X Z X	X Z X	X Z X	
PDB annotation	-DNA COTEIN DESIGN TURE, COMPLE A)	INGER/DNA) Z -DNA (OTEIN DESIGN FURE, COMPLE A)	TINGER/DNA) ZINGER/DNA) ZIDNA OTEIN DESIGN TURE, COMPLE	TINGER/DNA) ZI -DNA (OTEIN DESIGN TURE, COMPLE	INGER/DNA) ZI -DNA -OTEIN DESIGN TURE, COMPLE	
РОВ ап	FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC PINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGERIDNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGERIDNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGERIDNA)	,
Coumpound	CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, P, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	TRANSCRIPTION REGULATION YEAST TRANSCRIPTION FACTOR ADRI (RESIDUES 130- 159) IPAA 3 (PAPA - CARBOXY TERMINAL ZINC FINGER DOMAIN) MUTANT WITH IPAA 4 PRO 131 REPLACED BY ALA, PRO 133 REPLACED BY ALA, CYS 140 IPAA 5 REPLACED BY
SEQFOL D score				ПОП	1 O E	H. Y. I. I. I. I. I. I. I. I. I. I. I. I. I.
PMF		0.24	-0.18	0.42	0.65	96:0
Verify score		-0.71	0.22	-0.03	0.23	-0.38
Psi Blast		5.1e-11	1.5e-11	ie-12	8.5e-12	1.7e-05
END AA		556	865	953	0101	1013
STAR T AA		528	839	926	286	985
CHAI N ID		5	Ð	5		
PDB ID		lmey	Imey	Imey	1mey	Гряя
SEQ NO.		1015	1015	1015	1015	1015

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PDB annotation		ZINC FINGER TRANSCRIPTION FACTOR SP1; ZINC FINGER, TRANSCRIPTION ACTIVATION, SP1	ZINC FINGER TRANSCRIPTION FACTOR SPI; ZINC FINGER, TRANSCRIPTION ACTIVATION, SPI	ZINC FINGER TRANSCRIPTION FACTOR SP1; ZINC FINGER, TRANSCRIPTION ACTIVATION, SP1	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2	GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGII ATIONINA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) TFIIIA; SS GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, SS RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATION/DNA)
Coumpound	(NMR, 10 STRUCTURES) IPAA 6	SPIF3; CHAIN: NULL;	SP1F2; CHAIN: NULL;	SP1F2; CHAIN: NULL;	TRANSCRIPTION FACTOR IIIA; CHAIN: A; 5S RNA GENE; CHAIN: E, F;		TRANSCRIPTION FACTOR IIIA; CHAIN: A; 58 RNA GENE; CHAIN: E, F;	TRANSCRIPTION FACTOR IIIA; CHAIN: A; 5S RNA GENE; CHAIN: E, F;
SEQFOL D score								
PMF score		0.70	0.27	0.90	0.05		0.23	0.03
Verify		-0.10	-0.77	-0.54	-0.11		0.15	-0.17
Psi Blast		0.00051	0.00017	1.9e-05	6.8e-17		3.46-18	1.7e-18
END		1010	375	1010	468	··· <u></u>	496	551
STAR T AA		586	349	985	377		405	472
CHAI N ID					¥	•	∢	∢
PDB ID		lspl	1sp2	1sp2	£11£3		113	9
SEQ ID NO:		1015	1015	1015	1015		1015	1015

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PDB annotation	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC2
Coumpound	TRANSCRIPTION FACTOR IIIA; CHAIN: A; 5S RNA GENE; CHAIN: E, F;	TFIIIA; CHAN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAN: A, D; 5S RIBOSOMAL RNA GENE; CHAN: B, C, E, F;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;
SEQFOL D score					
PMF	0.64	0.47	0.00	0.29	0.28
Verify score	-0.17	-0.42	-0.65	-0.56	-0.39
Psi Blast	1.5e-21	8.5e-34	1.7e-28	7.6e-17	8.5e-31
END AA	1010	565	593	496	468
STAR T AA	675	405	472	351	354
CHAI N ID	¥	∢	¥	ပ	c
PDB ID	1tt3	11:16	1476	lubd	lubd
SEQ ID NO:	1015	1015	1015	1015	1015

PDB annotation	FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION PLGILL ATOMONA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX
Coumpound		YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;
SEQFOL D score					
PMF score		0.47	0.54	0.57	-0.18
Verify score		-0.13	-0.38	-0.26	0.04
Psi Blast		1.7e-31	5.16-30	le-31	6.8e-28
END		497	527	584	953
STAR T AA		384	412	479	813
CHAI N ID		v	O	U	ပ
PDB ID		lubd	lubd	1ubd	1ubd
SEQ EQ		1015	1015	1015	1015

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PDB annotation	(TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION PEGII ATTOMANA)	COMPLEX (TRANSCRIPTION PEGIT ATTOMONA) VANG VANG 1.	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	INTITATOR ELEMENT VVI 21NC2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION	REGULATION/DNA)	TRANSCRIPTION REGULATION	TRANSCRIPTION REGULATION,	ADRI, ZINC FINGER, NMR	TRANSCRIPTION REGULATION	TRANSCRIPTION REGULATION, ADRI, ZINC FINGER, NMR	TRANSCRIPTION REGULATION	TRANSCRIPTION REGULATION,
Coumpound		YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA;	CHAIN: A, B;	YY1; CHAIN: C; ADENO-	INITIATOR ELEMENT DNA;	CHAIN: A, B;			YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	CHAIN: A R.	62 67				ADR1; CHAIN: NULL;			ADR1; CHAIN: NULL;		ADRI; CHAIN: NULL;	
SEQFOL D score																						
PMF score		0.00		0.84			,		0.81							0.19			0.39		0.09	
Verify score		0.13		0.22					-0.56							-0.66			-0.80		0.39	
Psi Blast		3.4e-30		3.4e-34					5.1e-27							6.8e-12			8.5e-15		3.4e-16	
END AA		186		9001					1086							403			558		955	
STAR T AA		848		806					933							349			503		106	
CHAI N ID		ပ		C					၁					_								
PDB ID		1ubd		lubd					1ubd							2adr			2adr		2adr	
SEQ ID NO:		1015		1015					1015							1015]	1015		1015	

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PDB annotation	ADRI, ZINC FINGER, NMR	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ADRI, ZINC FINGER, NMR										COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;
Coumpound		ADR1; CHAIN: NULL;	COMPLEX(TRANSCRIPTION REGULATION/DNA)	TRAMTRACK PROTEIN (TWO	ZINC-FINGER PEPTIDE)	COMPLEXED WITH 2DRF 3 DNA 2DRP 4	COMPLEX(TRANSCRIPTION	REGULATION/DNA)	TRAMTRACK PROTEIN (TWO	ZINC-FINGER PEPTIDE)	COMPLEXED WITH 2DKP 3 DNA 2DRP 4	ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;			ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;			ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;			ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;			ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;
SEQFOL D score				-																									
PMF score		0.80	0.11				0.01					0.21				0.10				0.71				0.28				0.15	
Verify score		-0.01	-0.30			_	-0.47					-0.36				-0.44				-0.34				-0.29				-0.67	
Psi Blast		6.8e-18	3.4e-06				8.5e-10					3.4e-18				1.5e-26				6.8e-33				8.5e-33				5.1e-28	
END		1015	428				556					428				467				556				583				593	
STAR T AA		957	372				501					354				358				404				451				479	
CHAI N ID			Ą				Ą					Ą				Ą				∀				∢				4	
PDB ID		2adr	2drp				2drp					2gli				2gli				2gli				2gli				2gli	
SEQ ID NO:		1015	1015				1015					1015				1015				1015				1015				1015	

PDB annotation	GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)		OXIDOREDUCTASE FERROCYTOCHROME CCOXYGEN OXIDOREDUCTASE; OXIDOREDUCTASE, CYTOCHROME(C)-OXYGEN, CYTOCHROME C 2 OXIDASE	PEPTIDE SYNTHETASE GRSA; PEPTIDE SYNTHETASE, GRSA, ADENYLATE FORMING	OXIDOREDUCTASE OXIDOREDUCTASE, MONOOXYGENASE, PHOTOPROTEIN, LUMINESCENCE	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA),	ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2
Coumpound		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER DNA BINDING DOMAIN ZINC-FINGER (ZFY- SWAP) (NMR, 12 STRUCTURES) 7ZNF 3	CYTOCHROME C OXIDASE; CHAIN: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q,	GRAMICIDIN SYNTHETASE 1; CHAIN: A, B; PHENYLALANINE; CHAIN: C, D;	LUCIFERASE; CHAIN: NULL;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING SITE: CHAIN: B. C.	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;
SEQFOL D score					139.53	133.28	76.54		97.35	
PMF		96.0	0.31	-0.17						
Verify score		-0.18	-0.23	0.01					:	
Psi Blast		le-33	3.4e-05	3.4e-88	0	0	3.4e-29		1.7e-50	
END		1010	1013	299	610	809	184		239	
STAR T AA		106	586	_	48	59	86		157	
CHAI N ID		۲ ,		¥	¥		¥		ပ	
PDB ID		2gli	7znf	20cc	Iamu	11ci	lalh		lmey	
SEQ NO.		1015	1015	1021	1023	1023	1028		1028	

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PDB annotation	CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION		COMPLEX (IMMUNOGLOBULIN/RECEPTOR) IMMUNOGLOBULIN FOLD, TRANSMEMBRANE,
Coumpound		TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	HEMOLIN; CHAIN: A, B;	CATALYTIC ANTIBODY 17E8 COMPLEXED WITH PHENYL [1-(1-N-SUCCINYLAMINO)PENTYL] IEAP 3 PHOSPHONATE 1EAP 4	INTERLEUKIN-1 BETA; CHAIN: A; TYPE I INTERLEUKIN-1 RECEPTOR; CHAIN: B;
SEQFOL D score		106.38	87.68	87.54	65.92	55.72	51.71
PMF score						,	
Verify score							
Psi Blast		1.4e-36	6.8e-35	3.4e-31	6.8e-48	1.7e-10	1.7e-34
END AA		269	239	240	351	348	353
STAR T AA		97	130	66	-	133	54
CHAI N ID		<	ပ	¥.	A	В	В
PDB ID		11.66	Iubd	2gli	1bih	leap	litb
SEQ ID NO:		1028	1028	1028	1029	1029	1029

PDB annotation	GLYCOPROTEIN, RECEPTOR, 2 SIGNAL, COMPLEX (IMMUNOGLOBULIN/RECEPTOR)			TRANSFERASE FPS; TRANSFERASE, ISOPRENE BIOSYNTHESIS, CHOLESTEROL BIOSYNTHESIS	TRANSFERASE FPS; TRANSFERASE, ISOPRENE BIOSYNTHESIS, CHOLESTEROL BIOSYNTHESIS					COMPLEY ALTOT BAD
Coumpound		KB5-C20 T-CELL ANTIGEN RECEPTOR; CHAIN: A, B; ANTIBODY DESIRE-1; CHAIN: L, H;	IMMUNOGLOBULIN ANTIGEN- BINDING FRAGMENT (FAB) (IGG2B, KAPPA) IMAM 3	FARNESYL DIPHOSPHATE SYNTHASE; CHAIN: NULL;	FARNESYL DIPHOSPHATE SYNTHASE; CHAIN: NULL;	DEFENSIN DEFENSIN /HNP\$-3	DEFENSIN DEFENSIN /HNP\$-3	DEFENSIN DEFENSIN /HNP\$-3 IDFN 3	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	O JAI AUA INTO THE IN. CUAIN.
SEQFOL D score		59.81	56.22		70.74	58.55				
PMF				0.11			1.00	1.00	0.35	0.78
Verify score				-0.31			-0.35	-0.35	-0.15	0.44
Psi Blast		1.7e-08	1.2e-11	5.le-66	5.1e-66	1.1e-12	1.1e-12	5.1e-11	5.7e-22	3 8e-24
END AA		351	349	398	397	161	161	161	224	208
STAR T AA		133	139	57	9	132	133	133	99	89
CHAI N ID		Ħ	Н			A	Ą	A	4	۷
PDB ID		1kb5	lma m	luby	luby	1dfn	1dfn	1dfn	la4y	1,90
SEQ NO ID		1029	1029	1031	1031	1032	1032	1032	1034	1034

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PDB annotation	PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRND RIBONICI FORDOTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONICLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONICLEOPROTEIN	CELL ADHESION NEURAL CELL ADHESION	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL
Coumpound	R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HARPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B'; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;	AXONIN-1; CHAIN: A;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;
SEQFOL D score									
PMF score		0.57	0.80	0.62	0.05	0.22	0.25	0.74	0.58
Verify score		0.15	0.52	0.21	0.12	0.27	0.15	0.22	0.13
Psi Blast		1.3e-21	1.1e-23	9.5e-21	3.8e-06	7.6e-07	1.5e-06	8.5e-19	1.9c-24
END AA		249	208	249	363	364	367	186	223
STAR T AA		63	89	88	279	283	283	39	44
CHAI N ID		Ą	ပ	ပ	¥	ပ	Q	A	4
PDB ID		1a9n	1æ9n	1a9n	1cs6	lcvs	lcvs	140b	1d0b
SEQ ID NO:		1034	1034	1034	1034	1034	1034	1034	1034

PDB annotation	NC	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE	2.0 A 2 RESOLUTION, N-	FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT		TRANSFERASE CRYSTAL	SIKUCIUKE, KAB	2.0 A 2 RESOLUTION. N-	FORMYLMETHIONINE, ALPHA	SUBUNIT, BETA SUBUNIT	CONTRACTILE PROTEIN LEUCINE-	RICH REPEAT, BETA-BETA-ALPHA	CYLINDER, DYNEIN, 2	CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE-	RICH REPEAT, BETA-BETA-ALPHA	CYLINDER, DYNEIN, 2	CHLAMYDOMONAS, FLAGELLA	CELL ADHESION NCAM; NCAM,	IMMUNOGLOBULIN FOLD,	ROTEIN	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF2; FGFR2;	IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING TO THE I-	SET 2 SUBGROUP WITHIN IG-LIKE	DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF2; FGFR2;
	ADHESION	STRUCT GERANY	2.0 A 2 R	FORMYI		TRANSE	GERAND	20 A 2 R	FORMYI	SUBUNI	CONTIRA	RICH RE	CYLIND	CHLAM	CONTRA	RICH RE	CYLIND	CHLAM	CELL AI	IMMUN	GLYCOPROTEIN	GROWTI	FACTOR	MMCNC	DOMAIN	SET 2 SU	DOMAIN	GROWTI	FACTOR
Coumpound		RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNT:	CHAIN: A, C; RAB	GERANYLGERANYLTRANSFE RASE BETA SUBUNIT, CHAIN:	B, D;	RAB	GERAN LOEKAN LIKANSEE	CHAIN: A. C. RAB	GERANYLGERANYLTRANSFE	RASE BETA SUBUNIT; CHAIN:	OUTER ARM DYNEIN; CHAIN:	A;			OUTER ARM DYNEIN; CHAIN:	A;			NEURAL CELL ADHESION	MOLECULE; CHAIN: A, B, C, D;		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B, C, D;	FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN:	E, F, G, H;		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B, C, D;
SEQFOL D score																													
PMF score		0.03				-0.01					0.10				0.04				860			0.33						0.77	
Verify score		-0.25				50.0					-0.76				-0.56				0.10			0.15						0.12	
Psi Blast		1e-09				1.9e-16					1e-08				7.6e-21				5.7e-07			1.5e-06						3.8e-06	
END AA		218				235					245				208				358			373						358	
STAR T AA		901		·		38					104				45				279			276						283	
CHAI N ID		Ą				V					4				∀				∢			ш				-		<u>ت</u>	
PDB ID		ldœ				1dce					1ds9				1ds9				lepf			lev2						lev2	
SEQ D NO:		1034				1034					1034				1034				1034			1034						1034	

PDB annotation	IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	IMMUNOGLOBULIN-LIKE DOMAIN CONNECTIN 127, TITIN IG REPEAT 27; MUSCLE PROTEIN, IMMUNOGLOBULIN-LIKE DOMAIN		NERVE GROWTH FACTOR/TRKA COMPLEX BETA-NGF; COMPLEX, TRKA RECEPTOR, NERVE GROWTH FACTOR, CYSTEINE KNOT, 2 IMMUNOGLOBULIN LIKE DOMAIN, NERVE GROWTH FACTOR/TRKA COMPLEX	TRANSCRIPTION RNAIP; RANGAP; GTPASE-ACTIVATING PROTEIN FOR SPI1, GTPASE-ACTIVATING PROTEIN, GAP, RNAIP, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING,
Coumpound	FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	TITIN, 127; CHAIN: NULL;	MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) ITNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) ITNM 4 ITNM 58	NERVE GROWTH FACTOR; CHAIN: V, W; TRKA RECEPTOR; CHAIN: X, Y;	GTPASE-ACTIVATING PROTEIN RNA1_SCHPO; CHAIN: A, B;
SEQFOL D score							
PMF score		0.25	0.05	0.01	0.34	-0.19	0.24
Verify		-0.40	-0.61	0.21	0.23	0.25	-0.34
Psi Blast		0.0013	0.00076	5.7e-06	1.7e-06	1.7e-09	7.6e-19
END		230	236	. 958	358	490	198
STAR T AA		183	183	280	279	394	44
CHAI N ID		∢	В			×	¥
PDB CI		1fo1	1601	Itit	Itnm	Iww W	lyrg
Se Se Se Se Se Se Se Se Se Se Se Se Se S		1034	1034	1034	1034	1034	1034

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PDB annotation	HEMIHEDRAL TWINNING, 3 MEROHEDRAL TWINNING, MEROHEDRY	CELL ADHESION PROTEIN NCAM MODULE 2; CELL ADHESION, GLYCOPROTEIN, HEPARIN- BINDING, GPI-ANCHOR, 2 NEURAL ADHESION MOLECITIE	IMMUNOGLOBULIN FOLD, HOMOPHILIC 3 BINDING, CELL ADHESION PROTEIN	TRANSFERASE CK, MSSA; NUCLEOTIDE MONOPHOSPHATE KINASE,, TRANSFERASE	TRANSFERASE TRANSFERASE	TRANSFERASE APS KINASE, APS KINASE, ADENYLYLSULFATE KINASE, SULFATE, NUCLEOTIDE 2 KINASE, TRANSFERASE		COMPLEX (HYDROLASE/COFACTOR) TRIACYLGLYCEROL LIPASE;	COMPLEX (HYDROLASE/COFACTOR), LIPID DEGRADATION	SERINE ESTERASE RELATED PROTEIN 2 LIPASE; SERINE ESTERASE, HYDROLASE, LIPID DECRAPATION BANCEAS,	GLYCOPROTEIN, CHIMERIC
Coumpound		NEURAL CELL ADHESION MOLECULE, LARGE ISOFORM; CHAIN: A;		CYTIDINE MONOPHOSPHATE KINASE; CHAIN: A;	GLYCEROL-3-PHOSPHATE CYTIDYLYLTRANSFERASE; CHAIN: A, B;	ADENOSINE- S'PHOSPHOSULFATE KINASE; CHAIN: A, B;		TRIACYLGLYCEROL ACYL- HYDROLASE; CHAIN: A, C; COLIPASE; CHAIN: B, D		RP2 LIPASE; CHAIN: NULL;	
SEQFOL D score								112.24		107.65	
PMF score		0.46		0.12	0.18	0.35					
Verify score		0.40		-0.10	0.18	-0.55					
Psi Blast		9.5e-07		0.0019	1.1e-11	1.9e-05		0		0	
END		358		519	312	393		319		916	
STAR T AA		279		360	193	359		-		2	
CHAI N ID		⋖		V	¥	¥		∢			
PDB		Зпст		1cke	lcoz	146j		1eth		1gpl	
SEQ No b		1034		1035	1035	1035		1038		1038	

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PDB annotation			HYDROLASE HYDROLASE, LIPID DEGRADATION, PANCREATIC LIPASE		COMPLEX (DNA-BINDING PROTEIN/DNA) GHF-1; COMPLEX (DNA-BINDING PROTEIN/DNA), PITUITARY, CPHD, 2 POU DOMAIN, TRANSCRIPTION FACTOR	PROTEINDNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA	TRANSCRIPTION/DNA ULTRABITHORAX; PBX PROTEIN; DNA BINDING, HOMEODOMAIN,
Coumpound	HYDROLASE(CARBOXYLIC ESTERASE) LIPASE (E.C.3.1.1.3) (TRIACYLGLYCEROL HYDROLASE) 1HPL 3	HYDROLASE(CARBOXYLIC ESTERASE) LIPASE (E.C.3.1.1.3) COMPLEXED WITH COLIPASE AND INHIBITED ILPB 3 BY UNDECANE PHOSPHONATE METHYL ESTER (TWO CONFORMATIONS) ILPB 4	PANCREATIC LIPASE RELATED PROTEIN 1; CHAIN: NULL;	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 1AHD 3 REPLACED BY SER (C39S) COMPLEX WITH DNA (NMR, 1AHD 4 16 STRUCTURES) 1AHD 5	PIT-1; CHAIN: A, B; DNA; CHAIN: C, D;	HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	ULTRABITHORAX HOMEOTIC PROTEIN IV; CHAIN: A; HOMEOBOX PROTEIN
SEQFOL D score	107.77	109.40	100.01				
PMF score				1.00	0.65	1.00	1.00
Verify score				0.19	-0.39	0.20	0.33
Psi Blast	0	0	0	3.4e-34	3.8e-26	1.7e-27	5.1e-29
END	318	316	316	219	213	215	212
STAR T AA	ļ	-	2	154	145	158	158
CHAI	Ą	В		ď	¥	¥	¥
PDB ID	1hpl	11pb	lrpl	1ahd	lau7	1672	158i
SEQ B	1038	1038	1038	1044	1044	1044	1044

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PDB annotation	HOMEOTIC PROTEINS, DEVELOPMENT, 2 SPECIFICITY	COMPLEX (DNA-BINDING PROTEIN/DNA) DNA-BINDING PROTEIN, DNA, PAIRED BOX, TRANSCRIPTION 2 REGULATION	COMPLEX (DNA-BINDING PROTEIN/DNA) DNA-BINDING PROTEIN, DNA, PAIRED BOX, TRANSCRIPTION 2 REGULATION	DNA BINDING PROTEIN TTF-1 HD; IFTT 8 DNA BINDING PROTEIN, HOMEODOMAIN, TRANSCRIPTION FACTOR IFTT 19		COMPLEX (HOMEODOMAIN/DNA) VND/NK-2 HOMEODOMAIN, VENTRAL NERVOUS SYSTEM HOMEODOMAIN, HOMEOBOX, DNA-BINDING PROTEIN, EMBRYONIC 2 DEVELOPMENT, COMPLEX (HOMEODOMAIN/DNA)	COMPLEX (HOMEODOMAINIDNA) VND/NK-2 HOMEODOMAIN, VENTRAL NERVOUS SYSTEM HOMEODOMAIN, HOMEOBOX, DNA-BINDING PROTEIN, EMBRYONIC 2 DEVELOPMENT, COMPLEX (HOMEODOMAINIDNA) HELIX	
Coumpound	EXTRADENTICLE; CHAIN: B; DNA (5'- CHAIN: C; DNA (5'- CHAIN: D;	PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F	PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F	THYROID TRANSCRIPTION FACTOR I HOMEODOMAIN; IFTT 6 CHAIN: NULL; IFTT 7	DNA-BINDING FUSHI TARAZU PROTEIN (HOMEODOMAIN) (NMR, 20 STRUCTURES) IFTZ 3	HOMEOBOX PROTEIN VND; CHAIN: P; DNA; CHAIN: A, B;	HOMEOBOX PROTEIN VND; CHAIN: P; DNA; CHAIN: A, B;	DNA-BINDING PROTEIN
SEQFOL D score						50.85		
PMF score		1.00	00.1	96.0	0.99		1.00	0.99
Verify score		0.16	0.09	0.03	0.16		0.26	0.30
Psi Blast		7.6e-26	1.9e-23	1.9e-23	5.1e-29	6.8e-20	1.9e-25	8.5e-32
END		213	211	216	212	223	215	219
STAR T AA		153	155	155	153	146	153	160
CHAI N ID		Ą	æ			പ	e.	
PDB U		161	Jŷ1	期	1ftz	1nk2	lnk3	1 san
SE ES		1044	1044	1044	1044	1044	1044	1044

PDB annotation		COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	TRANSFERASE CK, MSSA; NUCLEOTIDE MONOPHOSPHATE KINASE,, TRANSFERASE	TRANSFERASE APS KINASE; APS KINASE, ADENYLYLSULFATE KINASE, SULFATE, NUCLEOTIDE 2 KINASE, TRANSFERASE	KINASE UMP/CMP KINASE; NUCLEOSIDE MONOPHOSPHATE KINASE, NMP KINASE, PHOSPHORYL 2 TRANSFER, TRANSITION STATE ANALOG COMPLEX, TRANSFERASE	TRANSFERASE SHIKIMATE KINASE, PHOSPHORYL TRANSFER, ADP, SHIKIMATE 2 PATHWAY, P-LOOP PROTEIN, TRANSFERASE	
Coumpound	ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 ISAN 3 REPLACED BY SER AND RESIDUES 1-6 DELETED (C39S,DEL 1-6) ISAN 4 (NMR, 20 STRUCTURES) ISAN 5	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	CYTIDINE MONOPHOSPHATE KINASE; CHAIN: A;	ADENOSINE- S'PHOSPHOSULFATE KINASE; CHAIN: A, B;	URIDYLMONOPHOSPHATE/CY TIDYLMONOPHOSPHATE KINASE; CHAIN: A;	SHIKIMATE KINASE; CHAIN: A, B;	TRANSFERASE URIDYLATE KINASE (E.C.2.7.4)
SEQFOL D score							
PMF score		0.46	0.40	0.33	66.0	0.84	0.64
Verify score		0.27	-0.08	0.08	0.34	-0.06	0.35
Psi Blast		0.0095	6.8e-22	3.4e-23	1.7e-21	1.7e-20	1.4e-19
END AA		214	187	187	185	186	185
STAR T AA		41	9	m	m	-	9
CHAI		A	Ą	Ą	¥	∀	
PDB ID		1a4y	1cke	146j	1469	1shk	1ukz
SEQ D NO:		1046	1048	1048	1048	1048	1048

			<u>'</u> —	_		_						_								_				
PDB annotation		TRANSFERASE CK; NUCLEOTIDE MONOPHOSPHATE KINASE, TRANSFERASE			COMPLEX (HORMONE/RECEPTOR) HGH, HGHBP; COMPLEX	(HUKMUNE/KECEFIUK)	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	RECEPTOR RECEPTOR, SIGNAL	TRANSDUCER OF IL-6 TYPE	CYTOKINES, THIRD 2 N-TERMINAL	DOMAIN, TRANSMEMBRANE,	GLICOFROIEIN	RECEPTOR RECEPTOR, SIGNAL	CVTOVINES THEN 2N TERMONAL	CITOMINES, I FIIKU 2 IN-1 EKMINAL	CLYCOPROTEIN GLYCOPROTEIN	RECEPTOR RECEPTOR, SIGNAL	TRANSDUCER OF IL-6 TYPE	CYTOKINES, THIRD 2 N-TERMINAL	DOMAIN, TRANSMEMBRANE,	GLYCOPROTEIN	RECEPTOR RECEPTOR, SIGNAL	TRANSDUCER OF IL-6 TYPE	CYTOKINES, THIRD 2 N-TERMINAL DOMAIN, TRANSMEMBRANE.
Coumpound	COMPLEXED WITH ADP AND AMP IUKZ 3	CYTIDINE MONOPHOSPHATE KINASE; CHAIN: A;	TRANSFERASE(PHOSPHOTRA NSFERASE) ADENYLATE KINASE (E.C.2.7.4.3) 3ADK 4		GROWTH HORMONE; CHAIN: A; GROWTH HORMONE	RECEPTOR; CHAIN: B;	HEMOLIN; CHAIN: A, B;	GP130; CHAIN: NULL;					GP130; CHAIN: NULL;				GP130; CHAIN: NULL;					GP130; CHAIN: NULL;		
SEQFOL D score																								
PMF score		0.12	0.22		0.48		-0.14	0.42					0.33				0.01					0.35		
Verify score		0.01	-0.02		0.18		0.21	0.35				1.	0.07				0.27					0.25		
Psi Blast		1.7e-21	8.5e-22		1.7e-10		6.8e-21	1.9e-14				;	3.8e-09				8.5e-12					5.7e-19		
END		187	184		349		338	350]	461				268					674		
STAR T AA		9	3		162		7	253				1	360				477					573		
CHAI N ID		¥_			В		∢																	
PDB ID		2cmk	3adk		laxi		1 bib	16j8				3	15j8				1bj8					1bj8		
SEQ ID NO:		1048	1048		1049		1049	1049					1049				1049					1049		

PDB annotation	GLYCOPROTEIN		HORMONE/GROWTH FACTOR	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	CONNECTIN A71, CONNECTIN: TITIN, CONNECTIN, FIBRONECTIN TYPE III	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	SIGNALING PROTEIN CYTOKINE RECEPTOR, GLYCOPROTEIN 130, GP130, INTERLEUKINE 6 2 RECEPTOR BETA SUBUNIT, SIGNALING PROTEIN	SIGNALING PROTEIN CYTOKINE RECEPTOR, GLYCOPROTEIN 130, GP 130, INTERLEUKINE 6 2 RECEPTOR BETA SUBUNIT, SIGNALING PROTEIN	SIGNALING PROTEIN CYTOKINE RECEPTOR, GLYCOPROTEIN 130, GP130, INTERLEUKINE 6 2 RECEPTOR BETA SUBUNIT,
Coumpound		GROWTH HORMONE; CHAIN: A; PROLACTIN RECEPTOR;	CHAIN: B;	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;	GP130; CHAIN: A, B;	GP130; CHAIN: A, B;	GP130; CHAIN: A, B;
SEQFOL D score											
PMF		0.05		0.77	0.30	0.25	0.15	0.55	-0.09	0.21	0.03
Verify score		0.14		0.12	0.59	-0.02	60.0	0.28	0.02	-0.07	0.25
Psi Blast		1.2e-21		3.8e-15	3.8e-12	5.1e-11	9.5e-14	3.8e-17	8.5e-19	1.9e-20	3.8e-12
END AA		354		259	351	572	578	675	363	347	479
STAR T AA		158		651	257	479	479	577	158	159	256
CHAI N ID		В							V	¥	¥
PDB ID		1bp3		1bpv	1bpv	1bpv	lbpv	1bpv	Ibqu	1bqu	1bqu
SEQ ID		1049		1049	1049	1049	1049	1049	1049	1049	1049

OZ	CHAI N ID	STAR T AA	END AA	Psi Blast	Verify score	PMF	SEQFOL D score	Coumpound	PDB annotation
<		358	581	1.7e-14	-0.05	0.10		GP130; CHAIN: A, B;	SIGNALING PROTEIN CYTOKINE RECEPTOR, GLYCOPROTEIN 130, GP130, INTERLEUKINE 6 2 RECEPTOR BETA SUBUNIT, SIGNALING PROTEIN
<u> </u>	<	479		6.8e-23	0.04	60.0		GP130; CHAIN: A, B;	SIGNALING PROTEIN CYTOKINE RECEPTOR, GLYCOPROTEIN 130, GP130, INTERLEUKINE 62 RECEPTOR BETA SUBUNIT, SIGNALING PROTEIN
	∀	256	352	3.8e-13	0.36	0.35		CYTOKINE RECEPTOR COMMON BETA CHAIN; CHAIN: A;	MEMBRANE PROTEIN BETA SANDWICH, CYTOKINE RECEPTOR, FN3 DOMAIN
	∢	359	457	7.6e-09	0.28	-0.12		CYTOKINE RECEPTOR COMMON BETA CHAIN; CHAIN: A;	MEMBRANE PROTEIN BETA SANDWICH, CYTOKINE RECEPTOR, FN3 DOMAIN
	m m	159	356	9.5e-27	0.17	0.24		GRANULOCYTE COLONY- STIMULATING FACTOR; CHAIN: A, C; G-CSF RECEPTOR; CHAIN: B, D;	CYTOKINE G-CSF; G-CSF-R; CLASSI CYTOKINE, HEMATOPOIETIC RECEPTOR, SIGNAL TRANSDUCTION
	Д	360	564	7.6e-16	0.14	0.06		GRANULOCYTE COLONY- STIMULATING FACTOR; CHAIN: A, C; G-CSF RECEPTOR; CHAIN: B, D;	CYTOKINE G-CSF; G-CSF-R; CLASSI CYTOKINE, HEMATOPOIETIC RECEPTOR, SIGNAL TRANSDUCTION
		156	350	1.16-34	-0.07	0.55		NEURAL ADHESION MOLECULE DROSOPHILA NEUROGILAN (CHYMOTR YPTIC FRAGMENT CONTAINING THE ICFB 3 TWO AMINO PROXIMAL FIBRONECTIN TYPE III REPEATS ICFB 4 (RESIDUES 610 - 814)) ICFB 5	
\vdash		255	456	1.9e-23	0.20	0.00		NEURAL ADHESION	

PDB annotation				CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION
Coumpound	MOLECULE DROSOPHILA NEUROGLIAN (CHYMOTRYPTIC FRAGMENT CONTAINING THE ICFB 3 TWO AMINO PROXIMAL FIBRONECTIN TYPE III REPEATS ICFB 4 (RESIDUES 610 - 814)) ICFB 5	NEURAL ADHESION MOLECULE DROSOPHILA NEUROGILAN (CHYMOTRYPTIC FRAGMENT CONTAINING THE ICFB 3 TWO AMINO PROXIMAL FIBRONECTIN TYPE III REPEATS ICFB 4 (RESIDUES 610 - 814)) ICFB 5	NEURAL ADHESION MOLECULE DROSOPHILA NEUROGLIAN (CHYMOTRYPTIC FRAGMENT CONTAINING THE ICFB 3 TWO AMINO PROXIMAL FIBRONECTIN TYPE III REPEATS ICFB 4 (RESIDUES 610 - 814)) ICFB 5	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;
SEQFOL D score							
PMF		0.42	0.06	-0.20	-0.08	-0.17	0.10
Verify score		0.17	0.35	0.00	0.15	0.12	-0.08
Psi Blast		3.8e-31	le-18	6.8e-23	1.7e-35	3.4e-15	6.8e-30
END AA		<i>519</i>	0.29	671	349	750	464
STAR T AA		475	479	272	7	350	29
CHAI N ID				4	¥	Ą	¥
PDB ID		1œ	lefb	1cs6	1036	1cs6	1cs6
SEQ NO:		1049	1049	1049	1049	1049	1049

PDB annotation	BINDING PROTEIN BINDING PROTEIN, CYTOKINE RECEPTOR	BINDING PROTEIN BINDING PROTEIN, CYTOKINE RECEPTOR	BINDING PROTEIN BINDING PROTEIN, CYTOKINE RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	COMPLEX (CYTOKINE/RECEPTOR)
Coumpound	GRANULOCYTE COLONY- STIMULATING FACTOR RECEPTOR; CHAIN: NULL;	GRANULOCYTE COLONY- STIMULATING FACTOR RECEPTOR; CHAIN: NULL;	GRANULOCYTE COLONY- STIMULATING FACTOR RECEPTOR; CHAIN: NULL;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2: CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	ERYTHROPOIETIN; CHAIN: A;
SEQFOL D score								
PMF score	0.04	0.09	-0.09	0.42	-0.15	0.19	0.51	0.13
Verify score	-0.16	0.12	0.47	0.25	0.02	-0.01	-0.03	0.08
Psi Blast	7.6e-13	3.8e-13	7.6e-10	6.8e-31	1.5e-15	5.7e-20	1.7e-28	1.5e-07
END AA	247	350	285	250	135	153	250	555
STAR T AA	157	259	479	74	7	61	74	474
CEAI				ပ	Q	Q	Q	В
E CE	1cto	1cto	lcto	lcvs	lcvs	lcvs	lcvs	leer
Sign of	1049	1049	1049	1049	1049	1049	1049	1049

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PDB annotation	EPOBP; ER YTHROPOIETIN, ER YTHROPOIETIN RECEPTOR, SIGNAL 2 TRANSDUCTION, HEMATOPOIETIC CYTOKINE, CYTOKINE RECEPTOR 3 CLASS 1, COMPLEX (CYTOKINE/RECEPTOR)	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE 1. SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE I-
Coumpound	ERYTHROPOIETIN RECEPTOR; CHAIN: B, C;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 1; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 1; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1: CHAIN:
SEQFOL D score							
PMF score		0.27	0.07	0.65	0.12	0.58	0.63
Verify score		0.02	0.13	-0.02	-0.14	-0.08	0.05
Psi Blast		3.8e-14	6.8e-13	1.7e-26	3.4e-30	5.7e-20	1.7e-26
END		222	234	250	254	213	250
STAR T AA		19	11	74	74	2	74
CHAI		V	4	ក	O O	υ U	ပ
PDB ID		lepf	lepf	lev2	lev2	levt	levt
SEQ Se SE		1049	1049	1049	1049	1049	1049

PDB annotation	SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	HORMONE/GROWTH FACTOR/HORMONE RECEPTOR 4- HELICAL BUNDLE, ALPHA HELICAL BUNDLE, TERNARY COMPLEX, FN 2 III DOMAINS, BETA SHEET DOMAINS, CYTOKINE- RECEPTOR COMPLEX	HORMONE/GROWTH FACTOR/HORMONE RECEPTOR 4- HELICAL BUNDLE, ALPHA HELICAL BUNDLE, TERNARY COMPLEX, FN 2 III DOMAINS, BETA SHEET DOMAINS, CYTOKINE- RECEPTOR COMPLEX	HORMONE/GROWTH FACTOR/HORMONE RECEPTOR 4- HELICAL BUNDLE, ALPHA HELICAL BUNDLE, TERNARY COMPLEX, FN 2 III DOMAINS, BETA SHEET DOMAINS, CYTOKINE- RECEPTOR COMPLEX	CONTRACTILE PROTEIN IMMUNOGLOBULIN FOLD, BETA BARREL		
Coumpound	C, D;	PLACENTAL LACTOGEN; CHAIN: A; PROLACTIN RECEPTOR; CHAIN: B, C;	PLACENTAL LACTOGEN; CHAIN: A; PROLACTIN RECEPTOR; CHAIN: B, C;	PLACENTAL LACTOGEN; CHAIN: A; PROLACTIN RECEPTOR; CHAIN: B, C;	TELOKIN; CHAIN: A	CELL ADHESION PROTEIN FIBRONECTIN CELL- ADHESION MODULE TYPE III- 10 IFNA 3	CELL ADHESION PROTEIN FIBRONECTIN CELL- ADHESION MODULE TYPE III-
SEQFOL D score							
PMF		0.51	0.03	0.71	-0.20	0.16	-0.20
Verify		0.28	-0.23	-0.11	0.18	0.23	0.38
Psi Blast		3.4e-24	1.7e-16	7.6e-10	5.1e-08	1.7e-13	6.8e-09
END AA		354	253	352	572	565	998
STAR T AA		160	70	192	475	486	779
CHAI		g	щ	U	A		
PDB UD]1f6f	1f6f	1f6f	1fhg	1 fna	1fna
SEQ D NO:		1049	1049	1049	1049	1049	1049

SEOFOL Coumpound PDB annotation		FIBRONECTIN; IFNF 6 CHAIN: CELL ADHESION PROTEIN RGD, NULL; IFNF 7	166.16 FIBRONECTIN; IFNF 6 CHAIN: CELL ADHESION PROTEIN RGD, EXTRACELLULAR MATRIX IFNF	4; IFNF 6 CHAIN:	FIBRONECTIN; IFNF 6 CHAIN: CELL ADHESION PROTEIN RGD, NULL: IFNF 7	V; IFNF 6 CHAIN:	FIBRONECTIN; CHAIN: A; HEPARIN AND INTEGRIN BINDING HEPARIN AND INTEGRIN BINDING	FIBRONECTIN; CHAIN: A; HEPARIN AND INTEGRIN BINDING HEPARIN AND INTEGRIN BINDING	FIBRONECTIN; CHAIN: A; HEPARIN AND INTEGRIN BINDING HEPARIN AND INTEGRIN BINDING	FIBRONECTIN; CHAIN: A; HEPARIN AND INTEGRIN BINDING	FIBRONECTIN; CHAIN: A; HEPARIN AND INTEGRIN BINDING HEPARIN AND INTEGRIN BINDING	FIBRONECTIN; CHAIN: A; HEPARIN AND INTEGRIN BINDING HEPARIN AND INTEGRIN BINDING	PIBRONECTIN; CHAIN: NULL; CELL ADHESION PROTEIN CELL ADHESION PROTEIN, RGD, EXTRACELLULAR MATRIX, 2 HEPARIN-BINDING, GLYCOPROTEIN	FIBRONECTIN; CHAIN: NULL; CELL ADHESION PROTEIN CELL ADHESION PROTEIN, RGD, EXTRACELLULAR MATRIX, 2 HEPARIN-BINDING, GLYCOPROTEIN	
PMF	score	86.0		0.23	0.76	-0.20	0.55	0.07	-0.07	-0.19	86.0	-0.20	00:1	1.00	9, 0
Verify	score	0.25		0.29	0.24	80.0	0.22	0.26	0.12	0.01	0.29	0.05	0.21	0.03	300
Psi Blast		5.1e-36	5.1e-36	3.4e-33	1.7e-26	3.4e-12	1.7e-20	3.4e-27	3.4e-23	8.5e-25	1.4e-18	3.4e-20	1.1e-27	3.4e-14	200
END	ΨΨ	565	575	998	459	116	564	499	751	855	333	716	343	343	757
STAR	TAA	158	159	479	89	772	272	361	482	280	70	774	157	162	250
CHAI	A I						4	4	4	4	A	A			
PDB	£	1faf	Jul Jul	1fnf	1fnf	1fif	1fih	1fnh	1fnh	1fnh	1fgh	垣	lmfn	1mfn	lmfn
SEO	ВŞ	1049	1049	1049	1049	1049	1049	1049	1049	1049	1049	1049	1049	1049	1040

PDB annotation	EXTRACELLULAR MATRIX, 2 HEPARIN-BINDING, GLYCOPROTEIN	CELL ADHESION PROTEIN CELL ADHESION PROTEIN RGD	EXTRACELLULAR MATRIX, 2	HEPARIN-BINDING, GLYCOPROTEIN	CELL ADHESION PROTEIN CELL	EXTRACELULAR MATRIX, 2	HEPARIN-BINDING,	CELL A DHESION PROTEIN CELL	ADHESION PROTEIN, RGD.	EXTRACELLULAR MATRIX, 2	HEPARIN-BINDING,	GLYCOPROTEIN	CELL ADHESION PROTEIN CELL	ADHESION PROTEIN, RGD,	EXTRACELLULAR MATRIX, 2	HEPARIN-BINDING,	GLYCOPROTEIN	MUSCLE PROTEIN CONNECTIN,	NEXTM5; CELL ADHESION,	GLYCOPROTEIN,	TRANSMEMBRANE, REPEAT,	BRAIN, 2 IMMUNOGLOBULIN FOLD,	ALTERNATIVE SPLICING, SIGNAL, 3	MUSCLE PROTEIN	STRUCTURAL PROTEIN INTEGRIN,	HEMIDESMOSOME, FIBRONECTIN,	CARCINOMA, STRUCTURAL 2 PROTEIN
Coumpound		FIBRONECTIN; CHAIN: NULL;			FIBRONECTIN; CHAIN: NULL;			FIRE ONE CTIN: CHAIN: NI II 1.					FIBRONECTIN; CHAIN: NULL;					TITIN; CHAIN: NULL;							INTEGRIN BETA-4 SUBUNIT;	CHAIN: A, B;	
SEQFOL D score													•														-
PMF		0.45			0.13			0.17	}				-0.05					1.00							66.0		
Verify score		0.13			0.05			0.24					0.20					0.16							0.19		
Psi Blast		6.8e-11			3.4e-20			1 94-27	1				6.8e-25					9.5e-23							1.2e-15		
END		459			565			899	}				999					152							352		
STAR T AA		272			360			482	}				482					\$							160		
CHAI N ID																									٧		
PDB UI		1mfn			Imfn			1mfn					1mfn					Inct							1983		
SEQ ID NO:		1049			1049			1040	}				1049					1049							1049		

PDB annotation	STRUCTURAL PROTEIN INTEGRIN, HEMIDESMOSOME, FIBRONECTIN, CARCINOMA, STRUCTURAL 2 PROTEIN	STRUCTURAL PROTEIN INTEGRIN, HEMIDESMOSOME, FIBRONECTIN, CARCINOMA, STRUCTURAL 2 PROTEIN	STRUCTURAL PROTEIN INTEGRIN, HEMIDESMOSOME, FIBRONECTIN, CARCINOMA, STRUCTURAL 2 PROTEIN	STRUCTURAL PROTEIN INTEGRIN, HEMIDESMOSOME, FIBRONECTIN, CARCINOMA, STRUCTURAL 2 PROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN	IMMUNOGLOBULIN-LIKE DOMAIN CONNECTIN 127, TITIN IG REPEAT 27; MUSCLE PROTEIN.
Coumpound	INTEGRIN BETA-4 SUBUNIT; CHAIN: A, B;	TENASCIN; CHAIN: A, B;	TENASCIN; CHAIN: A, B;	TENASCIN; CHAIN: A, B;	TITIN, 127; CHAIN: NULL;			
SEQFOL D score		103.51						
PMF score	0.59		0.43	99.0	0.43	-0.20	-0.20	0.15
Verify score	0.11		0.23	0.29	0.24	0.09	0.08	0.70
Psi Blast	3.4e-19	5.1e-26	5.1e-26	3.46-17	6.8e-12	3.4e-08	3.4e-11	1.1e-19
END AA	695	677	663	248	564	862	971	150
STAR T AA	361	479	481	89		711	776	9
CHAI N ID	¥	¥	A	A	V	∢	¥	
PDB ID	1983	19g3	1983	19g3	1qr4	Iqr4	lqr4	ıtit
SEQ Signal Signa	1049	1049	1049	1049	1049	1049	1049	1049

PDB annotation	IMMUNOGLOBULIN-LIKE DOMAIN			MUSCLE PROTEIN IMMUNOGLOBULIN SUPERFAMILY, I SET, MUSCLE PROTEIN	TRANSFERASE TRK RECEPTOR, RECEPTOR TYROSINE KINASE, 3D- DOMAIN SWAPPING, 2 TRANSFERASE	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM	PROTEIN BINDING ED-B, FIBRONECTIN, TYPEIII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING	PROTEIN BINDING ED-B, FIBRONECTIN, TYPEII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING	PROTEIN BINDING ED-B, FIBRONECTIN, TYPEII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING	PROTEIN BINDING ED-B, FIBRONECTIN, TYPEIII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING
Coumpound		MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) ITNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) ITNM 4 ITNM 58	GLYCOPROTEIN FIBRONECTIN (TENTH TYPE III MODULE) (NMR, 36 STRUCTURES) 1TTF 3	TWITCHIN 18TH IGSF MODULE; CHAIN: NULL;	NT-3 GROWTH FACTOR RECEPTOR TRKC; CHAIN: A;	FC GAMMA RIIB; CHAIN: A;	FIBRONECTIN; CHAIN: A;	FIBRONECTIN; CHAIN: A;	FIBRONECTIN; CHÁIN: A;	FIBRONECTIN; CHAIN: A;
SEQFOL D score										
PMF score		0.84	-0.20	-0.09	0.59	0.01	0.68	0.16	0.10	0.04
Verify score		0.39	0.39	0.66	0.18	-0.00	0.55	0.76	0.02	-0.12
Psi Blast		1.9e-22	1.7e-09	1.9e-22	1.1e-21	9.5e-13	1.5e-14	9.5e-14	9.5e-10	1.9e-13
END		152	998	152	163	251	250	345	465	570
STAR T AA		<i>L</i> 9	91.1	59	49	09	154	255	359	475
CHAI N ID					¥	¥	¥	Α.	Ą	A
PDB ID		Itnm	1tt	lwit	Iwwc	2fcb	2fnb	2fnb	2fnb	2fnb
SEQ NO:		1049	1049	1049	1049	1049	1049	1049	1049	1049

	PDB annotation	PROTEIN BINDING ED-B, FIBRONECTIN, TYPEIII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING			CELL ADHESION PROTEIN NCAM MODULE 2; CELL ADHESION, GLYCOPROTEIN, HEPARIN- BINDING, GPI-ANCHOR, 2 NEURAL ADHESION MOLECULE, IMMUNOGLOBULIN FOLD, HOMOPHILIC 3 BINDING, CELL ADHESION PROTEIN	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	CELL ADHESION NEURAL CELL ADHESION	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION,
	Coumpound	FIBRONECTIN; CHAIN: A;	HORMONE/RECEPTOR HUMAN GROWTH HORMONE COMPLEXED WITH ITS RECEPTOR 3HHR 3 (EXTRACELLULAR DOMAIN) 3HHR 4	HORMONE/RECEPTOR HUMAN GROWTH HORMONE COMPLEXED WITH ITS RECEPTOR 3HHR 3 (EXTRACELLULAR DOMAIN) 3HHR 4	NEURAL CELL ADHESION MOLECULE, LARGE ISOFORM; CHAIN: A;	HEMOLIN; CHAIN: A, B;	AXONIN-1; CHAIN: A;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN:
	SEQFOL D score							
	PMF	0.28	0.13	0.03	0.46	-0.06	0.07	-0.05
8	Verify	0.10	0.16	0.24	0.45	60.0	0.02	0.12
	Psi Blast	1.5e-16	le-10	3.8e-27	3.8e-23	3.4e-29	3.4e-34	3.4e-41
	END	0.29	349	351	154	157	158	157
	STAR T AA	574	162	162	59	20	4	E
	CHAI N ID	V	В	æ	Ą	Ą	Ą	၁
	PDB CII	2fnb	3hfir	3hhr	Зпст	1bih	1cs6	Icvs
	SEQ ID NO:	1049	1049	1049	1049	1050	1050	1050

PDB annotation	GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR,	TP ANSDICTION 2 DIMERIZATION	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD.	GLYCOPROTEIN	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF2; FGFR2;	IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING TO THE I-	SET 2 SUBGROUP WITHIN IG-LIKE	DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF2; FGFR2;	IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING TO THE I-	SET 2 SUBGROUP WITHIN IG-LIKE	DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF1; FGFR1;	IMMUNOGLOBULIN (IG) LIKE	DOMAINS BELONGING TO THE I-	SET 2 SUBGROUP WITHIN IG-LIKE	DOMAINS, B-TREFOIL FOLD	IMMUNE SYSTEM FC-EPSILON RI-	ALPHA; IMMUNOGLOBULIN FOLD,	GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM, MEMBRANE
Coumpound	c, D;	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B;	FIBRUBLASI GROWIN	C. D:		NEURAL CELL ADHESION MOLECULE: CHAIN: A. B. C. D:		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B, C, D;	FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN:	E, F, G, H;		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B, C, D;	FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN:	E, F, G, H;		FIBROBLAST GROWTH	FACTOR 1; CHAIN: A, B;	FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	ς, <u>υ</u> ;		HIGH AFFINITY	IMMUNOGLOBULIN EPSILON	RECEPTOR CHAIN: A;	FC RECEPTOR
SEQFOL D score			·		-																									
PMF score		0.33					0.64		0.05					'!	-0.05						0.54						0.54			0.90
Verify score		0.22			_		-0.00		0.08						0.21						0.08						0.19			-0.02
Psi Blast		6.8e-42					6.8e-22		1.7e-36						8.5e-14						Ie-41	_					1.7e-23			8.5e-24
END AA		157					143		157						162						157						162			159
STAR T AA		8					2		3						8						3						2			2
CHAI N ID		Ω	_				¥		ជា						យ						ပ						Ą			Ą
PDB ID		lcvs					lepf		lev2						lev2						levt						1£2q			1fcg
SEQ NO:		1050					1050		1050						1050						1050						1050			1050

PDB annotation	PROTEIN CD32; FC RECEPTOR, IMMUNOGLOULIN, LEUKOCYTE, CD32	CONTRACTILE PROTEIN IMMUNOGLOBULIN FOLD, BETA BARREL	CONTRACTILE PROTEIN IMMUNOGLOBULIN FOLD, BETA BARREL	IMMUNE SYSTEM RECEPTOR BETA SANDWICH, IMMUNOGLOBULIN- LIKE, RECEPTOR	MUSCLE PROTEIN CONNECTIN, NEXTM5; CELL ADHESION, GLYCOPROTEIN, TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD, ALTERNATIVE SPLICING, SIGNAL, 3 MUSCLE PROTEIN	MUSCLE PROTEIN CONNECTIN, NEXTM5; CELL ADHESION, GLYCOPROTEIN, TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD, ALTERNATIVE SPLICING, SIGNAL, 3 MUSCLE PROTEIN		
Coumpound	FC(GAMMA)RIIA; CHAIN: A;	TELOKIN; CHAIN: A	TELOKIN; CHAIN: A	LOW AFFINITY IMMUNOGLOBULIN GAMMA FC REGION CHAIN: A;	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;	MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) ITNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) ITNM 4 ITNM 58	MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) ITNM 3 (NMR, MINIMIZED
SEQFOL D score								
PMF score		0.63	-0.14	0.31	0.87	-0.09	0.54	-0.12
Verify score		-0.10	0.37	0.00	0.07	0.20	0.43	0.07
Psi Blast		1.26-12	3.4e-17	1.9e-20	1.26-12	I.7e-16	1.2e-12	1.7e-16
END		75	157	147	75	158	75	158
STAR T AA		-	76	7	7	80	2	08
CHAI N ID		A	A	¥				
PDB ID		1fhg	1fhg	1fh]	Inct	Inct	1tnm	Itnm
SEQ ID NO:		1050	1050	1050	1050	1050	1050	1050

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PDB annotation		IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULIN	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM	COMPLEX (ANTIGEN/PEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501,	HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	HISTOCOMPATIBILITY COMPLEX B8: B2M: PEPTIDE HLA B8. HIV.	MHC CLASS I,	HISTOCOMPATIBILITY COMPLEX	IMMUNE SYSTEM IMMUNE SYSTEM			IMMUNE SYSTEM MHC, HLA,	CLASS I, KIR, NK CELL RECEPTOR,	RECEPTOR/MHC COMPLEX				
Coumpound	AVERAGE STRUCTURE) 1TNM 4 1TNM 58	MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	FC GAMMA RIB; CHAIN: A;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;		B*0801; CHAIN: A; BETA-2 MICROGLOBULIN: CHAIN: B:	HIV-1 GAG PEPTIDE	(GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	HLA-A*0201; CHAIN: A, D; BETA-2 MICROGLOBULIN:	CHAIN: B, E; HTLV-1	OCTAMERIC TAX PEPTIDE; CHAIN: C, F;	HLA-CW3 (HEAVY CHAIN);	CHAIN: A; BETA-2-	PEPTIDE FROM IMPORTIN	ALPHA-2; CHAIN: C; NATURAL	KILLER CELL RECEPTOR	HISTOCOMPATIBILITY	ANTIGEN MURINE CLASS I
SEQFOL D score																		
PMF score		60.0	69:0	0:30		0.25			0.22			0.28					69.0	
Verify score		-0.26	0.14	-0.16		90.0			0.18			0.24					0.34	
Psi Blast		1.9e-19	6.8e-25	3.4e-43	`	3.4e-43			1.7e-42			5.1e-43		,			1.46-42	
END AA		146	160	115		115			115			115					116	
STAR T AA		7	2	26		26			26			56					26	
CHAI N ID		٧	A	A		A			V			٧					<	
PDB ID		2dli	2fcb	lain		lagd			1duz			1efx					Thoc	
SEQ ID NO:		1050	1050	1051		1051			1051			1051					1051	

Γ	_	<u> </u>		T			_		7				_					Ī		-	_			_						_	
PDB annotation					١	•			MAJOR HISTOCOMPATIBILITY	COMPLEX MHC NONCLASSICAL	CHAIN, MHC-E, HLA-E, MHC CLASS	HLA-E, HLA E, MAJOR	HISTOCOMPATIBILITY COMPLEX,	MHC, HLA, 2 BETA 2	MICROGLOBULIN, PEPTIDE,	LEADER PEPTIDE, 3 NON-	CLASSICAL MHC, CLASS IB MHC	COMPLEX (MHC I/PEPTIDE) VSV-8;	MHC/PEPTIDE COMPLEX,	TRANSMEMBRANE PROTEIN,	THYMIC 2 SELECTION, COMPLEX	(MHC I/PEPTIDE)		COMPLEX (NK RECEPTOR/MHC	CLASS I) H-2 CLASS I	HISTOCOMPATIBILITY ANTIGEN,	B2M; NK-CELL SURFACE	GLYCOPROTEIN YE1/48, NK CELL,	INHIBITORY RECEPTOR, MHC-1, C-	TYPE LECTIN-LIKE, 2	HISTOCOMPATIBILITY, B2M, LY49,
Coumpound		MAJOR HISTOCOMPATIBILITY COMPLEX CONSISTING 1HOC 3	OF H-2D=== , BZ- MICROGLOBULIN, AND A 9- PESIDI IS DEPTINE 1 LOCA	HISTOCOMPATIBILITY	ANTIGEN CLASS I	HISTOCOMPATIBILITY	ANTIGEN AW68.1	(LEUCOCYTE 1HSB 3	HLA CLASS I	HISTOCOMPATIBILITY	ANTIGEN HLA-E; CHAIN: A, C;	BETA-2-MICROGLOBULIN;	CHAIN: B, D; PEPTIDE	(VMAPRTVLL); CHAIN: P, Q;				MHC CLASS I H-2KB HEAVY	CHAIN; CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	VESICULAR STOMATITIS	VIRUS NUCLEOPROTEIN;	CHAIN: C;	MHC CLASS I H-2DD HEAVY	CHAIN; CHAIN: A; BETA-2-	MICROGLOBULIN; CHAIN: B;	HIV ENVELOPE	GLYCOPROTEIN 120 PEPTIDE;	CHAIN: P; LY49A; CHAIN: C, D;		
SEQFOL	D Score																														
PMF	score			0 40	9				0.25									0.37						0.39							
Verify	score			0 08	0.0				0.13									0.13						0.10							
Psi Blast				8 Sp. 44	\$1-2C.0				8.5e-43									1.2e-43						3.4e-42							
END	AA			115	<u> </u>				115									115						115							
STAR	1 AA			3,6	3				26									78						76							
CHAI	OI N			¥	ξ.	_			Ą			_						∢						٧							
PDB	a			1heh	OSIII				1mhe									10sz						1403					•		
SEO	NO:			1051	TCO!				1051									1021						1051							

PDB annotation	LY-49		COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	CALCIUM-BINDING PROTEIN CALB; CALCIUM++PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	
Coumpound		HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	PROTEIN KINASE C (BETA); CHAIN: A, B;	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2
SEQFOL D score			100.26	108.39	89.55	68.22	97.42
PMF score		0.52					!
Verify score		0.43					
Psi Blast		8.5e-44	3.4e-49	8.5e-38	3.4e-34	5.1e-37	3.4e-44
END		115	920	762	466	291	283
STAR T AA		26	568	965	327	160	154
CHAI N ID		₹	ပ	∢	4	∢	
PDB ID		Itmc	Ітеу	1466	2gli	1a25	Irsy
SEQ ID NO:		1051	1068	1068	1068	1070	1070

PDB annotation		COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION		COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC	FINGER PROTEIN COMPLEX (DNA-BINDING PROTEINDNA) FIVE-FINGER GLI;
Coumpound	DOMAIN) (CALB) IRSY 3	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;
SEQFOL D score		116.65	104.69		107.26	114.17	103.60
PMF score							
Verify score							
Psi Blast		5.1e-89	5.1e-81		1.4e-48	le-37	1.4e-33
END		322	345	_	412	913	441
STAR T AA		-	m		330	750	302
CHAI N ID		æ	a		ပ	∢	A
PDB ID		1got	1got		Imey	1116	2gli
SEQ NO:		1075	1078		1084	1084	1084

PDB annotation	GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	CONTRACTILE PROTEIN WHI DOMAIN; MOLECULAR RECOGNITION, ACTIN DYNAMICS, CONTRACTILE PROTEIN	CELL MOTILITY AN INCOMPLETE SEVEN STRANDED ANTI-PARALLEL BETA BARREL 2 CLOSED BY AN ALPHA HELIX, EVHI DOMAIN, ACTIN-BASED CELL 3 MOTILITY, INTERACTION MODULE	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) COMPLEX (TRANSCRIPTION REGULATIONDNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2
Coumpound		MENA EVHI DOMAIN; CHAIN: A; PEPTIDE ACTA; CHAIN: B;	EVHI DOMAIN FROM ENA/VASP-LIKE PROTEIN; CHAIN: A, B; PHE-GLU-PHE- PRO-PRO-PRO-THR-ASP- GLU-GLU; CHAIN: C, D;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING STE: CHAIN: B. C.	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;
SEQFOL D score		82.80	62.71	84.85	110.38	120.65	98.51
PMF score							·
Verify score							
Psi Blast		3.4e-50	1.7e-44	1.7e-26	1.4e-45	3.46-34	3.4e-33
END AA		122	121	473	200	530	444
STAR T AA		6	6	391	418	362	336
CHAI N ID		¥	A	A	U	⋖	ပ
PDB ID		levh	19c6	laih	Imey	ltf6	lubd
SEQ ID NO:		1090	1090	1095	1095	1095	1095

PDB annotation	GLII; COMPLEX (DNA-BINDING C, D; PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-BINDING PROTEIN/DNA)	CELL ADHESION PROTEIN EPITHELIAL CADHERIN DOMAINS 1 AND 2, ECAD12; CADHERIN, CELL ADHESION PROTEIN, CALCIUM		IULL; MUSCLE PROTEIN CTNC; CARDIAC, MUSCLE PROTEIN, REGULATORY, CALCIUM BINDING	HYDROLASE CALCINEURIN; AIN: A, HYDROLASE, PHOSPHATASE, IMMUNOSUPPRESSION	CALCTUM-BINDING CALCTUM- BINDING, MYRISTOYLATION, NEURONAL SPECIFIC GUANYLATE 2 CYCLASE ACTIVATOR	OTEIN EXED INDING DENT OM 4	Manual
Coumpound	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	E-CADHERIN; CHAIN: A, B;	N-CADHERIN; CHAIN: A;	TROPONIN C; CHAIN: NULL;	SERINE/THREONINE PHOSPHATASE 2B; CHAIN: A, B;	NEUROCALCIN DELTA; CHAIN: A, B;	CALCIUM-BINDING PROTEIN CALMODULIN COMPLEXED WITH CALMODULIN-BINDING DOMAIN OF 1CDM 3 CALMODULIN-DEPENDENT PROTEIN KNASE II ICDM 4	CAT CITINA-BINDING PROTEIN
SEQFOL D score	105.76	122.19	122.52	73.76	92.24	184.52	57.84	88 29
PMF score								
Verify score								
Psi Blast	6.8e-34	5.1e-48	6.8e-50	8.5e-36	1.7e-39	1.7e-49	1.4e-55	3 40-60
AA AA	473	266	265	237	249	245	234	235
STAR T AA	334	62	61	72	74	59	83	\$
CHAI	4	◀	V		æ	4	⋖	
PDB ID	2gli	1edh	lncj	laj4	1aui	1bjf	1cdm	Jell
SEQ ID NO:	1095	1101	1101	1105	1105	1105	1105	1105

PDB annotation		CALCIUM-BINDING PROTEIN CALCIUM-MYRISTOYL SWITCH, CALCUIM-BINDING PROTEIN		CALCIUM-REGULATED MUSCLE CONTRACTION MUSCLE CONTRACTION, CALCIUM- BINDING, TROPONIN, E-F HAND, 2 OPEN CONFORMATION	REGULATORY DOMAIN, CALCIUM- REGULATED 3 MUSCLE CONTRACTION	CALCIUM-BINDING PROTEIN EF- HAND 1TNX 14		CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEINPEPTIDE)		COMPLEX (GTPASE-ACTIVATING/GTP-BINDING)	COMPLEX (GTPASE- ACTIVATING/GTP-BINDING), GTPASE ACTIVATION	TRANSPORT PROTEIN TC4; GTPASE,
Coumpound	CALMODULIN (VERTEBRATE) ICLL 3	RECOVERIN; CHAIN: NULL;	CALCIUM-BINDING PROTEIN RECOVERIN (CALCIUM SENSOR IN VISION) IREC 3	TROPONIN C; CHAIN: NULL;		TROPONIN C; ITNX 4 CHAIN: NULL; ITNX 5	CONTRACTILE SYSTEM PROTEIN TROPONIN C 1TOP 3	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	BINDING PROTEIN SARCOPLASMIC CALCIUM- BINDING PROTEIN 2SCP 3	P50-RHOGAP; CHAIN: A, B, C; CDC42HS; CHAIN: D, E, F;	·	GTP-BINDING PROTEIN RAN;
SEQFOL D score		160.57	143.82	73.38		96.69	73.36	68.28	53.97	70.86		74.78
PMF score												
Verify score												
Psi Blast		3.4e-39	1.7e-34	1.5e-39		1e-38	8.5e-40	3.4e-59	3.4e-09	6.8e-48		8.5e-52
END		245	250	235		233	237	236	205	216		231
STAR T AA		62	89	07		<i>L</i> 9	63	79	34	51		45
CHAI								Ą	Ą	A		٧
PDB ID		liku	32.	1tcf		1tnx	Itop	lvrk	2scp	lam4	······	Ibyu
SE SE		1105	1105	1105		1105	1105	1105	1105	1114		1114

PDB annotation	NUCLEAR TRANSPORT, TRANSPORT PROTEIN	N; TRANSPORT PROTEIN TC4; GTPASE, NUCLEAR TRANSPORT, TRANSPORT PROTEIN	AP. SIGNALING PROTEIN GTP-BINDING PROTEINS, PROTEIN-PROTEIN COMPLEX, EFFECTORS	SIGNALING PROTEIN G PROTEIN, GTP HYDROLYSIS, KINETIC CRYSTALLOGRAPHY, 2 SIGNALING PROTEIN	ING SIGNALING PROTEIN PROTEIN- AIN: PROTEIN COMPLEX, ANTIPARALLEL COLLED-COLL		IN SMALL GTPASE KARYOPHERIN D; BETA, P95 SMALL GTPASE, NUCLEAR TRANSPORT RECEPTOR	GTP-BINDING PROTEIN GTP. BINDING PROTEIN, SMALL G PROTEIN, RAP2, GDP, RAS	GTP-BINDING GTP-BINDING, GTPASE, SMALL G-PROTEIN, RHO FAMILY, RAS SUPER 2 FAMILY	
Coumpound	CHAIN: A, B;	GTP-BINDING PROTEIN RAN; CHAIN: A, B;	RAS-RELATED PROTEIN RAP- 1A; CHAIN: A; PROTO- ONKOGENE SERINE/THREONINE PROTEIN KINASE CHAIN: B:	TRANSFORMING PROTEIN P21/H-RAS-1; CHAIN: A;	HIS-TAGGED TRANSFORMING PROTEIN RHOA(0-181); CHAIN: A; PKN; CHAIN: B;	HUMAN ADP-RIBOSYLATION FACTOR 1; 1HUR 5 CHAIN: A, B; 1HUR 7	RAN; CHAIN: A, C; IMPORTIN BETA SUBUNIT; CHAIN: B, D;	RAP2A; CHAIN: NULL;	RACI; CHAIN: NULL;	RAN; CHAIN: A, C; NUCLEAR PORE COMPLEX PROTEIN NUP358; CHAIN: B, D;
SEQFOL D score		69.65	67.97	75.99	82.44	71.40	86.05	79.99	77.42	89.47
PMF score										
Verify score										
Psi Blast		1.7e-52	1.7e-63	1.7e-62	1.5e-54	5.1e-12	3.4e-51	3.4e-60	1.2e-54	3.4e-51
END		231	216	217	222	218	221	217	222	231
STAR T AA		41	50	50	47	37	52	20	49	47
CHAI N ID		B	∢	A	¥	¥	¥			ပ
PDB ID		1byu	lcly	1ctq	lcxz	lhur	libr	lkao	1mh1	Іпр
SEQ No.		1114	1114	1114	1114	1114	1114	1114	1114	1114

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COMPLEX(GTPASE ACTIVATIN/PROTO-ONCOGENE) GTPASE-ACTIVATING PROTEIN RHOGAP; COMPLEX (GTPASE ACTIVATION/PROTO-ONCOGENE), GTPASE, 2 TRANSITION STATE, GA	COMPLEX (GTP- BINDING/EFFECTOR) RAS-RELATED PROTEIN RAB3A; COMPLEX (GTP- BINDING/EFFECTOR), G PROTEIN, EFFECTOR, RABCDR, 2 SYNAPTIC EXOCYTOSIS, RAB PROTEIN, RAB3A, RABPHILIN	HYDROLASE CDC42/CDC42GAP; CDC42/CDC42GAP; TRANSITION STATE, G-PROTEIN, GAP, CDC42, ALF3., HYDROLASE	HYDROLASE G PROTEIN, VESICULAR TRAFFICKING, GTP HYDROLYSIS, RAB 2 PROTEIN, NEUROTRANSMITTER RELEASE, HYDROLASE	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	HYDROLASE ORTHOPHOSPHORIC MONOESTER PHOSPHOHYDROLASE; HYDROLASE, ACETYLATION, TYROSINE PHOSPHATASE
P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN RHOA; CHAIN: B;	RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B;	GTP BINDING PROTEIN (G25K); CHAIN: A; GTPASE ACTIVATING PROTEIN (RHG); CHAIN: B;	RAB3A; CHAIN: A;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	LOW MOLECULAR WEIGHT PHOSPHOTYROSYL PHOSPHATASE; CHAIN: NULL;
70.72	93.30	77.06	102.45	56.47	214.70
			·		
1.4e-51	1.7e-63	3.4e-50	6.8e-65	1.7e-52	1.4e-54
216	226	230	221	324	140
51	49	20	47	2	2
В	∢	۷	4		
1124	1zbd	2ngr	3rab	2bnh	Spnt
1114	1114	1114	1114	1116	1120
	Itx4 B 51 216 1.4e-51 70.72 P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN RHOA; CHAIN: B;	1x4 B 51 216 1.4e-51 70.72 P50-RHOGAP; CHAIN! A; TRANSFORMING PROTEIN RHOA; CHAIN: B; RHOA; CHAIN: B; 1xbd A 49 226 1.7e-63 93.30 RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B; RABPHILIN-3A; RABPHI	1Ex4 B 51 216 1.4e-51 70.72 P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN RHOA; CHAIN: B; 12bd A 49 226 1.7e-63 93.30 RAB-3A; CHAIN: A; RABPHIL.IN-3A; CHAIN: B; 2 2 2 3 3.4e-50 77.06 GTP BINDING PROTEIN (G25K); CHAIN: A; CHAIN: A; CHAIN: A; CHAIN: A; CHAIN: A; CHAIN: B; CHAIN:	Iby B 51 216 1.4e-51 70.72 P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN RHOA; CHAIN: B; RHOA; CHAIN: B; RAB-34; CHAIN: B; RAB-34; CHAIN: A; RAB-34; CHAIN: A; RAB-34; CHAIN: A; RAB-34; CHAIN: B; RAB-34; CHAIN: B; RAB-34; CHAIN: B; RAB-34; CHAIN: A; CHAIN: B; RAB-34; CHAIN: A; CHAIN: B; RAB-34; CHAIN: A; RA	154 B 51 216 1.4e-51 70.72 P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN RHOA; CHAIN: B; 12bd A 49 226 1.7e-63 93.30 RAB-3A; CHAIN: B; RABPHILIN-3A; CHAIN: B; RABPHILIN-3A; CHAIN: B; CHAIN: A; CHAIN: NULL; CHAIN: CHAI

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PDB annotation	LPID TRANSPORT APO A-I; LPOPROTEIN, LPID TRANSPORT, CHOLESTEROL METABOLISM, 2 ATHEROSCLEROSIS, HDL, LCAT- ACTIVATION	SERINE PROTEINASE TRYPSIN-LIKE SERINE PROTEINASE, TETRAMER, HEPARIN, ALLERGY, 2 ASTHMA	COMPLEX (SERINE PROTEASE/INHIBITOR) (DELTAFEK)DSPAALPHA1; EGRCMK; SERINE PROTEASE, FIBRINOLYTIC ENZYMES, PLASMINOGEN 2 ACTIVATORS	COMPLEX (SERINE PROTEINASE/INHIBITOR)	COMPLEX (BLOOD COAGULATION/INHIBITOR) AUTOPROTHROMBIN IIA; HYDROLASE, SERINE PROTEINASE), PLASMA CALCIUM BINDING, 2 GLYCOPROTEIN, COMPLEX (BLOOD COAGULATION/INHIBITOR)	HYDROLASE/HYDROLASE INHIBITOR ENTEROKINASE, HEAVY CHAIN; ENTEROKINASE, LIGHT CHAIN; ENTEROPEPTIDASE, TRYPSINOGEN ACTIVATION, 2 HYDROLASE/HYDROLASE INHIBITOR
Coumpound	APOLIPOPROTEIN A-I; CHAIN: A, B, C, D;	BETA-TRYPTASE; CHAIN: A, B, C, D;	PLASMINOGEN ACTIVATOR; CHAIN: A; GLU-GLY-ARG CHLOROMETHYL KETONE; CHAIN: I;	ALPHA-THROMBIN; 1AHT 4 CHAIN: L, H; 1AHT 5 HIRUGEN; 1AHT 8 CHAIN: I; 1AHT 9	ACTIVATED PROTEIN C; CHAIN: C, L; D-PHE-PRO-MAI; CHAIN: P;	ENTEROPEPTIDASE; CHAIN: A; ENTEROPEPTIDASE; CHAIN: B; VALASP-ASP-ASP-LYS PEPTIDE; CHAIN: C;
SEQFOL D score	51.65	100.75	106.52	91.53	99.33	89.82
PMF score						
Verify score						
Psi Blast	5.1e-05	3.4e-76	5.1e-67	1.5e-73	5.1e-68	1.7e-76
END AA	280	741	739	744	739	739
STAR T AA	83	465	454	465	464	468
CHAI N ID	< −	A	∢	#	ပ	æ
PDB ID	lavl	1a01	laSi	laht	laut	1ekb
SEQ NO:		1127	1127	1127	1127	1127

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PDB annotation		COMPLEX (PROTEASE/INHIBITOR) TRYPSIN, COAGULATION FACTOR XA, CHIMERA, PROTEASE, PPACK, 2 CHLOROMETHYLKETONE, COMPLEX (PROTEASE/INHIBITOR)	COMPLEX (PROTEASE/INHIBITOR) RTAP; GLYCOPROTEIN, SERINE PROTEASE, PLASMA, BLOOD COAGULATION, 2 COMPLEX (PROTEASE/INHIBITOR)	COMPLEX (BLOOD COAGULATION/PROENZYME) COMPLEX (BLOOD COAGULATION/PROENZYME), THROMBIN, 2 PRETHROMBIN-2, PLASMA, SERINE PROTEASE	TERNARY COMPLEX (ZYMOGEN) TC, PCPA-TC; TERNARY COMPLEX (ZYMOGEN), SERINE PROTEINASE, C-TERMINAL 2 PEPTIDASE	SERINE PROTEASE (TC)-T-PA; SERINE PROTEASE, FIBRINOLYTIC ENZYMES	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAI STRIICTI RE COMPI EX
Coumpound	HYDROLASE(SERINE PROTEINASE) EPSILON- THROMBIN (E.C.3.4.21.5) NON- COVALENT COMPLEX WITH 1ETR 3 MQPA 1ETR 4	COAGULATION FACTOR XA- TRYPSIN CHIMERA; CHAIN: A; D-PHE-PRO-ARG- CHLOROMETHYLKETONE (PPACK) WITH CHAIN: I;	FACTOR XA; CHAIN: H, L; ANTICOAGULANT PEPTIDE; CHAIN: I;	ALPHA-THROMBIN; CHAIN: L, H; PRETHROMBIN-2; CHAIN: K;	PROCARBOXYPEPTIDASE A; CHAIN: A, B; PROPROTEINASE E; CHAIN: C; CHYMOTRYPSINOGEN C; CHAIN: D;	TWO CHAIN TISSUE PLASMINOGEN ACTIVATOR; CHAIN: A, B;	DNA; CHAIN: A, B, D, B; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;
SEQFOL D score	92.09	89.40	98.96	93.49	95.69	102.89	71.69
PMF score							
Verify score							
Psi Blast	1.5e-71	1.4e-76	3.4e-70	1.7e-72	1.5e-75	1.7e-68	6.8e-47
END	745	742	745	739	739	740	430
STAR T AA	465	463	465	425	454	467	342
CHAI N ID	н	4	н	×	D	m.	၁
ROB OI	letr	Ifty	lkig	1mkx	Ірує	JLI.	lmey
SEQ No US	1127	1127	1127	1127	1127	1127	1135

PDB annotation	(ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (DNA-BINDING PROTEINDNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	HYDROLASE ATP SYNTHASE, FOFI- ATPASE, OXIDATIVE PHOSPHORYLATION, 2 MITOCHONDRIA, HYDROLASE
Coumpound		TRANSCRIPTION FACTOR IIIA; CHAIN: A; 5S RNA GENE; CHAIN: E, F;	TFIIIA; CHAN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	FI-ATTASE ALPHA CHAIN; CHAIN: A; FI-ATPASE BETA CHAIN; CHAIN: B; FI-ATPASE GAMMA CHAIN; CHAIN: G;
SEQFOL D score		67.88	105.09	80.44	202.77	64.40
PMF						
Verify score						
Psi Blast		1.5e-21	3.4e-41	1.7e-30	1.4e-60	1.7e-46
END AA		433	454	400	431	183
STAR T AA		342	276	277	277	
CHAI N ID		A	¥	၁	4	В
PDB TD		SJII S	1116	Jubd	2gli	1mab
SEQ B B Ö		1135	1135	1135	1135	1139

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PDB annotation	HYDROLÁSE ATP SYNTHÁSE, FOFI- ATPÁSE, OXIDATIVE PHOSPHORYLATION, 2 MITOCHONDRIA, HYDROLÁSE	TOXIN BINDING PROTEIN TWO DOMAINS: BETA PROPELLER AND ALPHA/BETA FOLD	TRANSCRIPTION INHIBITOR BETA- PROPELLER	TRANSCRIPTION INHIBITOR BETA- PROPELLER	COMPLEX (GTP-BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMASUBUNIT; COMPLEX (GTP-BINDING/TRANSDUCER), GPROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	MEMBRANE PROTEIN CRYSTAL STRUCTURE, MEMBRANE, FERM DOMAIN, TAIL DOMAIN	, SIGNAL N, HODULIN	, SIGNAL V, IODULIN
PDB	HYDROLASE ATP SYNTHASE, I ATPASE, OXIDATIVE PHOSPHORYLATION, 2 MITOCHONDRIA, HYDROLASE	TOXIN BINDING PROTEIN TWO DOMAINS: BETA PROPELLER A ALPHA/BETA FOLD	TRANSCRIPTION PROPELLER	TRANSCRIPTION PROPELLER	COMPLEX (GTP- BINDING/TRANSDUCER) BETA TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMI SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	MEMBRANE PROTEIN CRYSTAL STRUCTURE, MEMBRANE, FERN DOMAIN, TAIL DOMAIN	KINASE KINASE, SIGNAL TRANSDUCTION, CALCIUM/CALMODULIN	KINASE KINASE, SIGNAL TRANSDUCTION, CALCIUM/CALMODULIN
Coumpound	FI-ATPASE ALPHA CHAIN; CHAIN: A; FI-ATPASE BETA CHAIN; CHAIN: B; FI-ATPASE GAMMA CHAIN; CHAIN: G;	TOLB PROTEIN; CHAIN: A;	TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A, B, C;	TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A, B, C;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	MOESIN; CHAIN: A, B; MOESIN; CHAIN: C, D;	CALCIUM/CALMODULIN: DEPENDENT PROTEIN KINASE; CHAIN: NULL:	CALCIUM/CALMODULIN- DEPENDENT PROTEIN KINASE; CHAIN: NULL;
SEQFOL D score	130.11						329.67	
PMF score		0.17	0.94	0.18	0.40	1.00		1.00
Verify score		0.19	0.70	0.16	0.01	69:0		0.64
Psi Blast	5.8e-66	1.6e-09	3.2e-29	3.2e-10	8e-22	1.4e-97	0	0
END	264	122	127	79	122	326	339	334
STAR T AA	51	В	=	3	9	43	36	9
CHAI N ID	В	4	A	4	щ	4		
PDB ID	Imab	lorz	1erj	lerj	1got	lefl	1a05	1a06
SEQ NO NO	1140	1148	1148	1148	1148	1149	1153	1153

PDB annotation	PATHOGENESIS-RELATED PROTEIN PATHOGENESIS-RELATED LEAF PROTEIN 6, ETHYLENE PATHOGENESIS-RELATED PROTEIN, PR-1 PROTEINS, 2 PLANT DEFENSE	PATHOGENESIS-RELATED PROTEIN PATHOGENESIS-RELATED LEAF PROTEIN 6, ETHYLENE PATHOGENESIS-RELATED PROTEIN, PR-1 PROTEINS, 2 PLANT DEFENSE	SIGNALING PROTEIN P21-RAC2; RHO GDI 2, RHO-GDI BETA, LY-GDI; BETA SANDWHICH, PROTEIN- PROTEIN COMPLEX, G-DOMAIN, 2 IMMUNOGLOBULIN FOLD, WALKER FOLD, GTP-BINDING PROTEIN	KINASE UMP/CMP KINASE; NUCLEOSIDE MONOPHOSPHATE KINASE, NMP KINASE, PHOSPHORYL 2 TRANSFER, TRANSITION STATE ANALOG COMPLEX, TRANSFERASE	TRANSFERASE TRANSFERASE (PHOSPHORYL)	TRANSFERASE TRANSFERASE (PHOSPHORYL)	
Coumpound	PATHOGENESIS-RELATED PROTEIN P14A; CHAIN: NULL;	PATHOGENESIS-RELATED PROTEIN P14A; CHAIN: NULL;	RAS-RELATED C3 BOTULNUM TOXIN SUBSTRATE 2; CHAIN: A; RHO GDP-DISSOCIATION INHIBITOR 2; CHAIN: B;	URIDYLMONOPHOSPHATE/CY TIDYLMONOPHOSPHATE KINASE; CHAIN: A;	PHOSPHOGLYCERATE MUTASE: CHAIN: A. B:	PHOSPHOGLYCERATE MUTASE; CHAIN: A, B;	TRANSFERASE(PHOSPHOTRA NSFERASE) ADENYLATE KINASE (E.C.2.7.4.3) 3ADK 4
SEQFOL D score	82.01					63.00	
PMF score		1.00	1.00	0.62	1.00		0.68
Verify score		0.47	0.06	-0.03	0.47		-0.17
Psi Blast	1e-28	1e-28	1.2e-46	1.5e-19	5.1e-47	5.1e-47	3.4e-26
END AA	203	203	 96	 239	424	449	236
STAR T AA	51	22		ន	249	250	36
CHAI N ID			∢	4	¥	V	
PDB ID	1cfe	1cfe	1ds6	1419	1qhf	1qhf	3adk
SEQ NO.	1155	1155	1156	1159	1159	1159	1159

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PDB annotation			KINASE KINASE, PHOSPHOTRANSFERASE	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION	COMPLEX (DNA-BINDING PROTEINDNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-
Coumpound	TRANSFERASE (PHOSPHORYL) PHOSPHOGLYCERATE MUTASE (E.C.2.7.5.3) DE- PHOSPHO ENZYME 3PGM 4	TRANSFERASE (PHOSPHORYL) PHOSPHOGLYCERATE MUTASE (E.C.2.7.5.3) DE- PHOSPHO ENZYME 3PGM 4	THYMDYLATE KINASE; CHAIN: A, B, C, D, E, F, G, H;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;
SEQFOL D score		58.96		100.83	108.88	86.63	98.31
PMF score	1.00		0.19				
Verify	0.19		-0.13				
Psi Blast	1.7e-48	1.7e-48	1.2e-29	4.8e-51	8e-38	5.1e-53	3.2e-34
END AA	14	441	237	442	437	442	443
STAR T AA	249	249	34	360	276	334	304
CHAI N ID			∢	U	⋖	ပ	¥
PDB ID	3pgm	Зрет	3tmk	lmey	11f6	1ubd	2gli
SEQ No.	1159	1159	1159	1160	1160	1160	1160

п		1		RASE,	3, 2											PROTEIN			L DIVISION,		BITOR)	z	CLIN	HIBITORY 2	LL CYCLE,	BITOR)		gC _t t.
PDB annotation	BINDING PROTEIN/DNA)	KINASE KINASE, SIGNAL TRANSDUCTION,	CALCIUM/CALMODULIN	TRANSFERASE TRANSFERASE,	SEKINEJ I HKEONINE-FROJE KINASE, CASEIN KINASE, 2 SERTHR KINASE											PROTEIN KINASE CDK2; PROTEIN	KINASE, CELL CYCLE,	PHOSPHORYLATION,	STAUROSPORINE, 2 CELL DIVISION,	MITOSIS, INHIBITION	COMPLEX (KINASE/INHIBITOR)	CDK6; P19INK4D; CYCLIN	DEPENDENT KINASE, CYCLIN	DEPENDENT KINASE INHIBITORY 2	PROTEIN, CDK, INK4, CELL CYCLE,	COMPLEX (KINASE/INHIBITOR)	HEADER HELIX	COMPLEX (INHIBITOR
Coumpound		CALCIUM/CALMODULIN- DEPENDENT PROTEIN KINASE;	CHAIN: NULL;	PROTEIN KINASE CK2/ALPHA-	SUBUNII; CHAIN: NULL;	TRANSFERASE(PHOSPHOTRA	NSFERASE) \$C-/AMP\$-	CEC 2 7 1 37) (\$C/APK\$) 1APM 3	(CATALYTIC SUBUNIT) ALPHA	ISOENZYME MUTANT WITH	SER 139 1APM 4 REPLACED BY	ALA (/S139A\$) COMPLEX WITH	THE PEPTIDE 1APM 5	INHIBITOR PKI(5-24) AND THE	DETERGENT MEGA-8 1APM 6	CYCLIN-DEPENDENT PROTEIN	KINASE 2; CHAIN: NULL;				CYCLIN-DEPENDENT KINASE	6; CHAIN: A, C; CYCLIN-	DEPENDENT KINASE	INFIBITOR; CHAIN: B, D;				CYCLIN-DEPENDENT KINASE
SEQFOL D score		130.42		108.45		168.88										111.26					93.00							113.75
PMF score																												
Verify score															,													
Psi Blast		3.2e-84		6.8e-54		0										4.8e-56					6.8e-56							6.8e-62
END		340		334		323										348					323							331
STAR T AA		43		18		18										20					51							47
CHAI N ID						<u> </u>			_				_					_			Ą					_		¥
PDB ID		1a06		1860		lapm										lad1					1bi8							1bk
SEQ NO:		1163		1163		1163										1163					1163							1163

PDB annotation	PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	TRANSFERASE CSK; PROTEIN KINASE, C-TERMINAL SRC KINASE, PHOSPHORYLATION, 2 STAUROSPORINE, TRANSFERASE		•	PHOSPHOTRANSFERASE FGFRIK, FIBROBLAST GROWTH FACTOR RECEPTOR 1; TRANSFERASE, TYROSINE-PROTEIN KINASE, ATP-BINDING, 2 PHOSPHORYLATION, RECEPTOR, PHOSPHOTRANSFERASE	PHOSPHOTRANSFERASE FGFRIK, FIBROBLAST GROWTH FACTOR RECEPTOR 1; TRANSFERASE, TYROSINE-PROTEIN KINASE, ATP-BINDING, 2 PHOSPHORYLATION, RECEPTOR, PHOSPHOTRANSFERASE	PROTEIN KINASE CDK2; TRANSFERASE, SERINE/THREONINE PROTEIN
Coumpound	B;	C-TERMINAL SRC KINASE; CHAIN: A;	PHOSPHOTRANSFERASE CAMP-DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT ICMK 3 (E.C.2.7.1.37) ICMK 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3 (CATALYTIC SUBUNIT) 1CTP 4	FGF RECEPTOR 1; CHAIN: A, B;	FGF RECEPTOR 1; CHAIN: A, B;	HUMAN CYCLIN-DEPENDENT KINASE 2; CHAIN: NULL;
SEQFOL D score		93.49	175.36	168.10	106.44	117.87	128.78
PMF score							
Verify score							
Psi Blast		1.3e-31	0	0	6.4e-31	1.3e-37	1e-66
END AA		300	353	343	309	304	348
STAR T AA		44	6	15	39	36	20
CHAI N ID		A	щ	ចា	⋖	æ	
PDB ID		lbyg	1cmk	lctp	1fgk	Ifgk	Ihol
SEQ B B S		1163	1163	1163	1163	1163	1163

STAR END Psi Blast TAA AA
38 323 3.2e-26
38 5.1e-64
24 359 1e-90
31 395 1.6e-50
49 305 1.1e-83
44 389 9.6e-46
47 370 8e-57

			_									т			
· PDB annotation	TITIN, MUSCLE, AUTOINHIBITION	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE, MAP 2, ERK2; TRANSFERASE, SERINE/THREONINE-PROTEIN KINASE, MAP KINASE, 2 ERK2		IMMUNE SYSTEM IMMUNOGLOBULIN, IMMUNORECEPTOR, IMMUNE SYSTEM	T-CELL SURFACE GLYCOPROTEIN IMMUNOGLOBULIN FOLD, TRANSMEMBRANE,	GLYCOPROTEIN, T-CELL, 2 MHC, LIPOPROTEIN, T-CELL SURFACE GLYCOPROTEIN	IMMUNE SYSTEM FAB 58.2; FAB 58.2: V3 LOOP: IMMUNOGLOBULIN.	FAB, HIV-1, GP120, V3, IMMUNE SYSTEM				IMMUNE SYSTEM HUMAN TOP DEPTITION OF A	A2, HTLV-1, TAX, TCR, T 2 CELL PECEPTOR DAMINE SYSTEM	NECEL FOR, IMPROVE STRIEM	
Coumpound		EXTRACELLULAR REGULATED KINASE 2; CHAIN: NULL;		ALPHA-BETA T CELL RECEPTOR (TCR) (D10); CHAIN: A;	T-CELL SURFACE GLYCOPROTEIN CD4; CHAIN: NULL;		IGGI ANTIBODY 58.2 (LIGHT CHAIN): CHAIN: L. IGGI	ANTIBODY 58.2 (HEAVY CHAIN); CHAIN: H; EXTERIOR	MEMBRANE GLYCOPROTEIN(GP120); CHAIN: P:	IMMUNOGLOBULIN IMMUNOGLOBULIN	(KAPPA LIGHT CHAIN) FAB' FRAGMENT IFIG 3	MHC CLASS I HLA-A; CHAIN:	CHAIN: B; TAX PEPTIDE P6A;	RECEPTOR: CHAIN: D: HI.A-A	0201; CHAIN: E;
SEQFOL D score		116.38		50.07	50.90		51.50			51.43		50.17			
PMF															
Verify score					<u> </u>	· 									
Psi Blast		3.4e-69		1.6e-12	0.00034		4.8e-21			86-19		6.4e-23			
END		400		247	190		244			239		219			
STAR T AA		36		17	22		17			17		14			
CHAI				∢			Н	_		H		Ω			
PDB ID		3erk		1bw m	1cdy		1f58			1 fig		lqm			
SEQ NO.		1163		1170	1170		1170			1170		1170			

PDB annotation		IMMUNOGLOBULIN	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	BLOOD COAGULATION FACTOR BLOOD COAGULATION, GLYCOPROTEIN, CALCIUM, PLATELET, PLASMA, 2 ALTERNATIVE SPLICING, SIGNAL, DISEASE MUTATION, 3	POL YMORPHISM	BLOOD COAGULATION BLOOD COAGULATION, PLASMA PROTEIN, CROSSLINKING	BLOOD COAGULATION BLOOD COAGULATION, PLASMA PROTEIN, CROSSLINKING	BLOOD COAGULATION BLOOD	COAGULATION, FIBRINOGEN-420, ALPHAEC DOMAIN, 2 FIBRINOGEN RELATED DOMAIN, GLYCOSYLATED PROTEIN	BLOOD COAGULATION BLOOD COAGULATION, PLASMA,	PLAIELEI, FIBKINOGEN, FIBKIN BLOOD COAGULATION BLOOD
Coumpound	IMMUNOGLOBULIN IGG2A FAB FRAGMENT (CNI206) 2GFB 3	IMMUNOGLOBULIN; CHAIN: A, B, C, D;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	GAMMA-FIBRINOGEN CARBOXYL TERMINAL FRAGMENT; CHAIN: NULL;		FIBRIN; CHAIN: A, B, C, D, E, F, G, H, I, J;	FIBRIN; CHAIN: A, B, C, D, E, F, G, H, I, J;	FIBRINOGEN-420; CHAIN: A, B,	C, D, E, F, G, H;	FIBRINOGEN; CHAIN: A, B, C, D, E, F, S, T, M, N;	FIBRINOGEN; CHAIN: A, B, C,
SEQFOL D score	51.08	51.13		129.15		132.32	141.90	154.36		141.24	130.27
PMF			0.04								
Verify score			-0.20								
Psi Blast	1.6e-17	9.6e-21	0.0017	1.7e-53		1.7e-63	3.4e-62	1.7e-57		1.1e-39	3.2e-39
END	240	239	245	418		416	422	419		419	416
STAR T AA	15	17	152	195		148	151	242		170	160
CHAI N ID	∢	æ				<u>м</u>	ပ	4		O	B
PDB ID	2gfb	2рср	la17	1ffb		1fzc	Ifzc	1fzd		Ifzg	lfzg
SEQ N O N	1170	1170	1174	1180		1180	1180	1180		1180	1180

PDB annotation	COAGULATION, PLASMA, PLATELET, FIBRINOGEN, FIBRIN	CYTOKINE MACROPHAGE, INFLAMMATORY RESPONSE,	CYTOKINE CYTOKINE MACROPHAGE, INFLAMMATORY RESPONSE, CYTOKINE	CYTOKINE PHENYLPYRUVATE TAUTOMERASE; CYTOKINE, MACROPHAGE, INFLAMMATORY RESPONSE, TAUTOMERASE	HEXAMERIZATION DOMAIN HEXAMERIZATION DOMAIN, ATPASE, TRANSPORT	CALCIUM-BINDING PROTEIN CALSEQUESTRIN, CALCIUM- BINDING PROTEIN, SARCOPLASMIC 2 RETICULUM, RABBIT SKELETAL MUSCLE	UBIQUITIN CONIUGATION UBC2; UBIQUITIN CONJUGATION, UBIQUITIN-CONJUGATING ENZYME	LIGASE E6AP; UBCH7; BILOBAL STRITCHIRE ELONGATED SHAPE	E3 UBIQUITIN LIGASE, E2 2	LIGASE UBIQUITIN, UBIQUITIN- CONJUGATING ENZYME, YEAST
Coumpound	D, E, F, S, T, M, N;	MACROPHAGE MIGRATION INHIBITORY FACTOR; CHAIN:	NULL; GLYCOSYLATION-INHIBITING FACTOR; CHAIN: A, B, C;	MACROPHAGE MIGRATION INHIBITORY FACTOR; CHAIN: A, B, C;	N-ETHYLMALEIMIDE- SENSITIVE FUSION PROTEIN; CHAIN: A;·	CALSEQUESTRIN; CHAIN: NULL	UBIQUITIN-CONIUGATING ENZYME RAD6; CHAIN: A, B, C;	UBIQUITIN-PROTEIN LIGASE	UBIQUITIN CONJUGATING	UBIQUITIN CONJUGATING ENZYME; CHAIN: A;
SEQFOL D score		145.02	180.54	170.94	76.43	91.59	71.29	84.49		81.61
PMF score										
Verify score										
Psi Blast		1.6e-43	1.6e-52	3.2e-52	1.2e-35	4.8e-25	3.2e-47	9.6e-40		3.2e-53
END AA		104	115	115	450	723	061	161		193
STAR T AA		2	p=4	2	195	382	31	47		44
CHAI			4	4	4		∢	Ω		4
PDB		1fim	1gif	lmfi	1d2n	1a8y	layz	1c4z		1qcq
SEQ NO ID		1181	1181	1181	1185	1195	1200	1200		1200

PDB annotation	UBIQUITIN-CONJUGATING ENZYME UBIQUITIN- CONJUGATING ENZYME; UBIQUITIN-CONJUGATING ENZYME, UBIQUITIN-DIRECTED 2 PROTEOLYSIS, CELL CYCLE CONTROL, LIGASE	UBIQUITIN CONJUGATION UBCI; UBIQUITIN CONJUGATION, LIGASE	UBIQUITIN CONJUGATION UBIQUITIN CONJUGATION, UBIQUITIN CARRIER PROTEIN, THIOESTER 2 BOND, LIGASE	UBIQUITIN CONJUGATION UBC7; UBIQUITIN CONJUGATION, LIGASE, YEAST	TRANSFERASE IL-2-INDUCIBLE T- CELL KINASE; TRANSFERASE, REGULATORY INTRAMOLECULAR COMPLEX, KINASE	TRANSFERASE ATK, AMGXI, BPK; TYROSINE KINASE, X-LINKED AGAMMAGLOBULINEMIA, XLA, BTK, SH3 2 DOMAIN, TRANSFERASE	TRANSFERASE TYROSINE-PROTEIN KINASE, TRANSFERASE, SIGNAL TRANSDUCTION, 2 SH3	COMPLEX (SH3 DOMAINVIRAL ENHANCER) SRC-HOMOLOGY 3 DOMAIN; COMPLEX (SH3 DOMAINVIRAL ENHANCER), PROTO-ONCOGENE, 2 TRANSFERASE, TYROSINE-
Coumpound	UBC9; CHAIN: NULL;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONIUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	ITK; CHAIN: NULL;	BRUTON'S TYROSINE KINASE; CHAIN: NULL;	HEMOPOIETIC CELL KINASE; CHAIN: A, B, C, D, E, F;	FYN TYROSINE KINASE; CHAIN: A, C; HIV-1 NEF PROTEIN; CHAIN: B, D;
SEQFOL D score	74.19	71.32	67.54	64.54				
PMF					0.06	0.58	0.21	0.82
Verify score					-0.35	0.55	0.03	0.12
Psi Blast	1.6e-43	3.2e-47	1.46-41	3.2e-43	3.2e-15	1.1e-13	4.8e-15	1.6e-17
END AA	193	193	193	193	317	319	318	317
STAR T AA	24	31	56	33	241	250	258	258
CHAI N ID	∢						Ą	∢
PDB ID	1u9a	2aak	2e2c	2ncz	 lawj	laww	IbuI	lefn
SEQ ID NO:	1200	1200	1200	1200	1204	1204	1204	1204

PDB annotation	PROTEIN KINASE, PHOSPHORYLATION, 3 AIDS, MYRISTYLATION, GTP-BINDING, ATP-BINDING, SH3 DOMAIN, 4 SH2 DOMAIN, PPII HELIX, PXXP MOTIF	TRANSFERASE PROTO-ONCOGENE TYROSINE KINASE; PROTO- ONCOGENE, TRANSFERASE, TYROSINE-PROTEIN KINASE, 2 PHOSPHORYLATION, ATP-BINDING, MYRISTYLATION, SH3 DOMAIN, 3 COMPLEX (PHOSPHOTRANSFERASE/PEPTIDE)	·	COMPLEX (TRANSFERASE/PEPTIDE) SRC, SH3 DOMAIN, LIGANDS, NON-PEPTIDE ELEMENTS, 2 COMPLEX (TRANSFERASE/PEPTIDE)	TYROSINE-PROTEIN KINASE BRUTONS TYROSINE KINASE, B CELL PROGENITOR KINASE, TRANSFERASE, TYROSINE- PROTEIN KINASE, PHOSPHORYLATION, 2 SH3 DOMAIN	
Coumpound		PHOSPHOTRANSFERASE FYN; CHAIN: A; 3BP-2; CHAIN: B;	SIGNAL TRANSDUCTION PROTEIN GROWTH FACTOR RECEPTOR-BOUND PROTEIN 2 (GRB2, N-TERMINAL IGBR 3 SH3 DOMAIN) COMPLEXED WITH SOS-A PEPTIDE IGBR 4 (NMR, 29 STRUCTURES) IGBR 5	C-SRC; CHAIN: C; NLI (MN7- MN2-MN1-PLPPLP); CHAIN: N;	TYROSINE-PROTEIN KINASE BTK; CHAIN: A;	PHOSPHOTRANSFERASE FYN
SEQFOL D score						
PMF score		0.58	0.63	0.69	0.43	0.31
Verify score	٠	0.32	0.25	0.42	0.41	0.39
Psi Blast		6.4e-19	4.8e-12	1.3c-16	4.8e-13	8e-19
END AA		318	322	316	318	318
STAR T AA		255	260	259	257	256
CHAI N ID		A	V .	၁	∢	Ą
PDB ID		1fyn	1gbr	Inlo	1 q ly	Ishf
SEQ ID NO:		1204	1204	1204	1204	1204

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PDB annotation		TRANSFERASE TRANSFERASE, TYROSINE KINASE, SH3, SH2, ONCOPROTEIN	TRANSFERASE HCK; SH3, PROTEIN TYROSINE KINASE, SIGNAL TRANSDUCTION, 2 TRANSFERASE	ELECTRON TRANSPORT HELIX, BETA-STRAND, ELECTRON TRANSPORT		COMPLEX (HYDROLASE/INHIBITOR) LDTI; COMPLEX (HYDROLASE/INHIBITOR), HYDROLASE, INHIBITOR, 2 INFLAMMATION, TRYPTASE	CALCIUM-BINDING PROTEIN CALMODULIN CERIUM TRIC- DOMAIN, RESIDUES 1 - 75; CERIUM- LOADED, CALCIUM-BINDING PROTEIN	METAL BINDING PROTEIN CAVP;
Сонпроинд	PROTO-ONCOGENE TYROSINE KINASE (E.C.2.7.1.112) 1SHF 3 (SH3 DOMAIN) 1SHF 4	ABL TYROSINE KINASE; CHAIN: NULL;	HEMATOPOIETIC CELL KINASE; CHAIN: NULL;	CYTOCHROME B5; CHAIN: A;	COMPLEX(SERINE PROTEINASE-INHIBITOR) ALPHA-CHYMOTRYPSIN (E.C.3.4.21.1) COMPLEX WITH TURKEY 1CHO 4 OVOMUCOID THIRD DOMAIN (/OMTKY3\$) 1CHO 5	TRYPSIN; CHAIN: T; TRYPTÁSE INHIBITOR; CHAIN: L;	CALMODULIN; CHAIN: NULL;	CALCIUM VECTOR PROTEIN;
SEQFOL D score								
PMF		-0.15	0.55	0.19	0.58	0.86	0.05	0.23
Verify score		0.04	0.04	69.0	-0.30	-0.23	-0.15	-0.50
Psi Blast		9.6e-28	3.2e-15	0.0096	5.1e-07	1.7e-07	3.4e-05	6.8e-06
END		423	318	86	592	587	410	410
STAR T AA		251	255	38	554	559	356	349
CEAI N ID				∀	I	1		Ą
PDB		2abi	4hck	1cxy	1cho	11dt	1ak8	lc7w
SEQ No.		1204	1204	1205	1208	1208	1215	1215

PDB annotation	EF-HAND FAMILY, CALCIUM BINDING PROTEIN, NMR			STRUCTURAL PROTEIN HELIX- TURN-HELIX	METAL TRANSPORT CALMODULIN, HIGH RESOLUTION, DISORDER	ANTIFREEZE PROTEIN INSECT ANTIFREEZE PROTEIN, THERMAL HYSTERESIS, TENEBRIO 2 MOLITOR, IODINATION, RIGHT- HANDED BETA-HELIX, TMAFP	TRANSPORT PROTEIN CALCIUM BINDING, EF HAND, FOUR-HELIX BUNDLE	BLOOD CLOTTING COMPLEX(SERINE PROTEASE/COFACTOR/LIGAND), BLOOD COAGULATION, 2 SERINE PROTEASE, COMPLEX, CO-FACTOR, RECEPTOR ENZYME, 3 INHIBITOR, GLA, EGF, COMPLEX (SERINE 4
Coumpound	CHAIN: A;	CALCIUM-BINDING PROTEIN CALMODULIN COMPLEXED WITH CALMODULIN-BINDING DOMAIN OF ICDM 3 CALMODULIN-DEPENDENT PROTEIN KINASE II ICDM 4	COMPLEX(SERINE PROTEINASE-INHIBITOR) ALPHA-CHYMOTR YPSIN (E.C.3.4.21.1) COMPLEX WITH TURKEY 1CHO 4 OVOMUCOID THIRD DOMAIN (/OMTKY3\$) 1CHO 5	CARDIAC TROPONIN C; CHAIN: A;	CALMODULIN; CHAIN: A;	THERMAL HYSTERESIS PROTEIN ISOFORM YL-1; CHAIN: A, B;	CALMODULN; CHAIN: A;	BLOOD COAGULATION FACTOR VIIA; CHAIN: L; BLOOD COAGULATION FACTOR VIIA; CHAIN: H; SOLUBLE TISSUE FACTOR; CHAIN: T; 5L15; CHAIN: I;
SEQFOL D score								
PMF score		60.0	0.65	0.21	0.05	0.13	0.69	-0.19
Verify score		-0.48	0.04	-0.26	0.15	0.21	0.10	0.07
Psi Blast		3.4e-05	5.1e-10	1.7e-05	1.4e-05	3.2e-06	6.8e-05	4.8e-09
END AA		418	84	410	414	305	410	302
STAR T AA		356	36	349	348	226	349	236
CHAI N ID		∢	-	A	¥	∀	¥.	٦
PDB ID		1cdm	1cho	1dtl	lext	lezg	1671	l fak
SEQ ID NO:		1215	1215	1215	1215	1215	1215	1215

			1				l	T
PDB annotation	PROTEASE/COFACTOR/LIGAND), BLOOD CLOTTING	EXTRACELLULAR MODULE OSTEONECTIN, SPARC, SECRETED PROTEIN ACIDIC AND EXTRACELLULAR MODULE, GLYCOPROTEIN, ANTI-ADHESIVE PROTEIN, 2 COLLAGEN BINDING, SITE-DIRECTED MUTAGENESIS, GLYCOSYLATED 3 PROTEIN MODRES	GROWTH FACTOR EHI; EH DOMAIN, EPSIS, EF-HAND, SOLUTION STRUCTURE, S100 PROTEIN		COMPLEX (SERINE PROTEASE/INHIBITOR) SGPB; ISGP 8 ALA18-OMTKY3; ISGP 14 SERINE PROTEINASE, PROTEIN INHIBITOR ISGP 25	CALCIUM-BINDING PROTEIN BM- 40, OSTEONECTIN; ISRA 7 EXTRACELLULAR MATRIX PROTEIN ISRA 20	CALCIUM-BINDING PROTEIN BM- 40, OSTEONECTIN; ISRA 7 EXTRACELLULAR MATRIX PROTEIN ISRA 20	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2
Coumpound		BASEMENT MEMBRANE PROTEIN BM-40; CHAIN: A, B;	EPIDERMAL GROWTH FACTOR RECEPTOR SUBSTRATE CHAIN: A;	CALCIUM-BINDING PROTEIN RAT ONCOMODULIN 1RRO 3	STREPTOMYCES GRISEUS PROTEINASE B; 1SGP 6 CHAIN: E; 1SGP 7 TURKEY OVOMUCOID INHIBITOR; 1SGP 11 CHAIN: I; 1SGP 12	SPARC; ISRA 4 CHAIN: NULL; ISRA 5	SPARC; ISRA 4 CHAIN: NULL; ISRA 5	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;
SEQFOL D score		73.86					58.51	
PMF			0.01	0.19	0.55	0.72		-0.19
Verify score			-0.05	-0.37	0.67	0.43		60.0
Psi Blast		1.7e-28	6.8e-07	3.4e-05	1.7e-08	1.5e-38	1.5e-38	4.8e-09
END AA		426 *	419	410	48	423	426	313
STAR T AA		201	348	348	43	279	279	240
CEAI N ID		⋖	4		ļ.			٦
PDB ID		lnub	1qjt	oril oril	Isgp	Isra	lsra	Ixka
SEQ ID NO:		1215	1215	1215	1215	1215	1215	1215

PDB annotation	GROWTH FACTOR LIKE DOMAIN				PHOSPHOLIPID ANALOG PLACENTAL ANTICOAGULANT PROTEIN; PHOSPHOLIPID ANALOG, CALCIUM BINDING PROTEIN, MEMBRANE 2 BINDING PROTEIN	PHOSPHOLIPID ANALOG PLACENTAL ANTICOAGULANT PROTEIN; PHOSPHOLIPID ANALOG, CALCIUM BINDING PROTEIN, MEMBRANE 2 BINDING PROTEIN					
Coumpound		PROTEINASE INHIBITOR (KAZAL) OVOMUCOID THIRD DOMAIN CLEAVED RDI 30VO 3	CALCIUM-BINDING PROTEIN PARVALBUMIN (ALPHA LINEAGE) 5PAL 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	ANNEXIN V; CHAIN: NULL;	ANNEXIN V; CHAIN: NULL;	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN I IAIN 3	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN I IAIN 3	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN 1 IAIN 3	CALCIUM/PHOSPHOLIPID- BINDING PROTEIN ANNEXIN V IALA 3	CALCIUM/PHOSPHOLIPID- BINDING PROTEIN ANNEXIN V IALA 3
SEQFOL D score						75.48		170.55		!	75.25
PMF score		0.21	0.13	-0.19	1.00		1.00		1.00	00'1	
Verify score		0.76	-0.11	0.08	0.58		0.23		-0.02	0.42	
Psi Blast		1.7e-09	3,4e-05	3.2e-15	3.2e-51	3.2e-51	1e-68	1e-68	4.8e-67	3.2e-53	3.2e-53
END		84	410	286	217	217	222	223	222	214	214
STAR T AA		40	348	112	1	-	61	19	79	1	1
CHAI N ID				V							
PDB ID		3000	5pal	9wga	1a8a	1 a 8a	1ain	1ain	lain	1ala	1ala
SEQ NO:		1215	1215	1215	 1216	1216	1216	1216	1216	1216	1216

PDB annotation	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN 32.5 KD CALELECTRIN, ENDONEXIN I; 1ANN 7 32.5KD CALELECTRIN, ENDONEXIN I, LIPOCORTIN IV, 1ANN 12.2 CHROMOBINDIN IV, PROTEIN II	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN 32.5 KD CALELECTRIN, ENDONEXIN I; 1ANN 7 32.5KD CALELECTRIN, ENDONEXIN I, LIPOCORTIN IV, 1ANN 12 2 CHROMOBINDIN IV, PROTEIN II	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN 32.5 KD CALELECTRIN, ENDONEXIN I; 1ANN 7 32.5KD CALELECTRIN, ENDONEXIN I, LIPOCORTIN IV, 1ANN 12 2 CHROMOBINDIN IV, PROTEIN II	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN P68, PROTEIN III, 67-KDA-CALCIMEDIN, LIPOCORTIN ANNEXIN, CALCIUM-BINDING, 2 CALCIUM/PHOSPHOLIPID-BINDING PROTEIN	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN III, 67-KDA-CALCIMEDIN, LIPOCORTIN ANNEXIN, CALCIUM-BINDING, MEMBRANE-BINDING, 2 CALCIUM/PHOSPHOLIPID-BINDING
Coumpound	ANNEXIN IV; 1ANN 5 CHAIN: NULL; 1ANN 6	ANNEXIN IV; 1ANN 5 CHAIN: NULL; 1ANN 6	ANNEXIN IV; 1ANN 5 CHAIN: NULL; 1ANN 6	ANNEXIN VI; CHAIN: NULL;	ANNEXIN VI; CHAIN: NULL;
SEQFOL D score		68.51			
PMF score	1.00		1.00	1.00	1.00
Verify score	0.42		0.46	0.24	0.48
Psi Blast	9.6e-51	3.2e-67	3.2e-67	1.6e-50	9.6e-78
END	215	216	219	216	221
STAR T AA	11	y4	62	10	vı
CHA1 N ID					
EDB GI	Iann	lann	laan	lavc	lavc
SEQ ID NO:	1216	1216	1216	1216	1216

PDB annotation	PROTEIN	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN ANNEXIN FAMILY 1AXN 14	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN ANNEXIN FAMILY 1AXN 14	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN ANNEXIN FAMILY 1AXN 14				PHOSPHOLIPID ANALOG PLACENTAL ANTICOAGULANT PROTEIN; PHOSPHOLIPID ANALOG, CALCIUM BINDING PROTEIN, MEMBRANE 2 BINDING PROTEIN					
Coumpound		ANNEXIN III; 1AXN 4 CHAIN: NULL; 1AXN 5	ANNEXIN III; 1AXN 4 CHAIN: NULL; 1AXN 5	ANNEXIN III; 1AXN 4 CHAIN: NULL; 1AXN 5	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN V (LIPOCORTIN V, ENDONEXIN	II, FLACENTAL THAD 3 ANTICOAGULANT PROTEIN)	(CALCIUM IONS ARE VISIBLE) MUTATION 1HVD 4 WITH GLU 17 REPLACED BY GLY (E17G) HVD 5	ANNEXIN V; CHAIN: NULL;	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN 1 1AIN 3	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN 1. 1AIN 3	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN I 1AIN 3	CALCIUM/PHOSPHOLIPID- RINDING PROTFIN ANNEXIN V	IALA 3
SEQFOL D score			84.90		69.28					403.43			
PMF		1.00		1.00				1.00	1.00		1.00	1.00	_
Verify score		0.76		0.70		•		9.0	0.22		0.17	0.31	
Psi Blast		9.6e-53	3.2e-67	3.2e-67	1.1e-49			8e-39	8e-32	0	0	3.2e-38	-
END		216	223	222	212			189	187	304	300	186	
STAR T AA		4	53	65	1			∞ .	13	33	35	8	
CHAI N ID	J·												
PDB ID		laxn	laxn	laxn	Ihvd			1a8a	lain	lain	lain	1ala	
SEQ ID NO:		1216	1216	1216	1216			1217	1217	1217	1217	1217	

PDB annotation	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN 32.5 KD CALELECTRIN, ENDONEXIN I; 1ANN 732.5KD CALELECTRIN, ENDONEXIN I, LIPOCORTIN IV, 1ANN 12 2 CHROMOBINDIN IV, PROTEIN II	CALCIUM/PHOSPHOL.PID-BNDING PROTEIN III, 67-KDA-CALCIMEDIN, LIPOCORTIN ANNEXIN, CALCIUM-BINDING, MEMBRANE-BINDING, 2 CALCIUM/PHOSPHOLIPID-BINDING PROTEIN	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN ANNEXIN FAMILY 1AXN 14		PHOSPHOLIPID ANALOG PLACENTAL ANTICOAGULANT PROTEIN; PHOSPHOLIPID ANALOG, CALCIUM BINDING PROTEIN, MEMBRANE 2 BINDING PROTEIN	PHOSPHOLIPID ANALOG PLACENTAL ANTICOAGULANT
Coumpound	ANNEXIN IV; 1ANN 5 CHAIN: NULL; 1ANN 6	ANNEXIN VI; CHAIN: NULL;	ANNEXIN III; 1AXN 4 CHAIN: NULL; 1AXN 5	CALCIUMPHOSPHOLIPID BINDING ANNEXIN V (LIPOCORTIN V, ENDONEXIN II, PLACENTAL 1HVD 3 ANTICOAGULANT PROTEIN) (CALCIUM IONS ARE VISIBLE) MUTATION 1HVD 4 WITH GLU 17 REPLACED BY GLY (E17G) 11HVD 5	ANNEXIN V; CHAIN: NULL;	ANNEXIN V; CHAIN: NULL;
SEQFOL D score			,		58.84	
PMF	00'1	1.00	1.00	00.1		1.00
Verify score	0.55	0.28	0.54	0.31		0.68
Psi Blast	3.26-38	4.8e-26	1.6e-37	6.4e-38	3.2e-66	3.2e-66
END AA	187	186	187	184	195	194
STAR T AA	∞	∞	∞	∞	31	33
CHAI N ID						
PDB ID	lann	lavc	laxn	1hvd	1a8a	Ia8a
SEQ NO ID	1217	1217	1217	1217	1218	1218

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PDB annotation	PROTEIN; PHOSPHOLIPID ANALOG, CALCIUM BINDING PROTEIN, MEMBRANE 2 BINDING PROTEIN				CALCIUM/PHOSPHOLIPID-BINDING	ENDONEXIN I; 1ANN 732.5KD	LIPOCORTIN IV, IANN 12 2	CHROMOBINDIN IV, PROTEIN II	CALCIUM/PHOSPHOLIPID-BINDING	PROTEIN 32.5 KD CALELECTRIN,	ENDONEXIN I; IANN 7 32.5KD	CALELECTRIN, ENDONEXIN I,	CIMOMODE IN IN PROPERTY	IANN 13	CALCIUM/PHOSPHOLIPID-BINDING	PROTEIN P68, PROTEIN III, 67-KDA-	CALCIMEDIN, LIPOCORTIN	ANNEXIN, CALCIUM-BINDING,	MEMBRANE-BINDING, 2	CALCIUM/PHOSPHOLIPID-BINDING	PROTEIN	CALCIUM/PHOSPHOLIPID-BINDING	PRUIEIN P68, PRUIEIN III, 67-KDA-	CALCIMEDIN, LIPOCORI IN	- AININGALIN, CALCICINI-DIINDIING,
Coumpound		CALCIUM/PHOSPHOLIPID BINDING ANNEXIN I IAIN 3	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN I IAIN 3	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN I IAIN 3	ANNEXIN IV; 1ANN 5 CHAIN:	ONE, INDIA			ANNEXIN IV; 1ANN 5 CHAIN:	NULL; 1ANN 6			•		ANNEXIN VI; CHAIN: NULL;							ANNEXIN VI; CHAIN: NULL;			
SEQFOL D score			170.39		65.05																				
PMF		1.00		1.00				·	1.00						1.00					<u> </u>	,	1.00			
Verify score		0.23		0.15					0.54						0.30							0.61			
Psi Blast		1e-68	1e-68	1.6e-65	3.2e-68				3.2e-68						1.6e-38						i	1.6e-71			
END AA		194	195	194	195				190						186							193			
STAR TAA		33	33	35	33				34						2							34			
CHAI N ID						· <u> </u>				_															
PDB ID		Iain	lain	lain	lann				lann						lavc].	lavc			
SEQ ID NO:		1218	1218	1218	1218				1218				_		1218						[1218			_

PDB annotation	MEMBRANE-BINDING, 2 CALCIUM/PHOSPHOLIPID-BINDING PROTEIN	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN ANNEXIN FAMILY 1AXN 14	CALCIUM/PHOSPHOLIPID-BINDING PROTEIN ANNEXIN FAMILY 1AXN 14	METAL BINDING PROTEIN PLANT ANNEXIN, CAPSICUM ANNUUM, BELL PEPPER, CALCIUM 2 BINDING PROTEIN			SCAFFOLD PROTEIN SCAFFOLD PROTEIN, PP2A,
Coumpound		ANNEXIN III; 1AXN 4 CHAIN: NULL; 1AXN 5	ANNEXIN III; 1AXN 4 CHAIN: NULL; 1AXN 5	ANNEXIN 24(CA32); CHAIN: A, B;	CALCIUM/PHOSPHOLIPID BINDING ANNEXIN V (LIPOCORTIN V, ENDONEXIN II, PLACENTAL 1HVD 3 ANTICOAGULANT PROTEIN) (CALCIUM 10NS ARE VISIBLE) MUTATION 1HVD 4 WITH GLU 17 REPLACED BY GLY (E17G) 11HVD 5 CALCIUM/PHOSPHOLIPID BINDING ANNEXIN V (LIPOCORTIN V, ENDONEXIN II, PLACENTAL 1HVD 3 ANTICOAGULANT PROTEIN) (CALCIUM 10NS ARE VISIBLE) MUTATION 1HVD 4 WITH GLU 37 PERI ACEN RY GI V (E17G)	1HVD 5	PROTEIN PHOSPHATASE PP2A; CHAIN: A, B;
SEQFOL D score		85.90			68.02		120.56
PMF score			00'1	00'1	1.00		
Verify score			0.70	0.02	0.59		
Psi Blast		6.4e-67	6.4e-67	3.2e-19	9.6e-68 9.6e-68		1.6e-45
END		195	194	169	195		627
STAR T AA		25	31	2	33		23
CHAI				∢			<
PDB CI		laxn	laxn	1dk5	ibvd Ibvd		1b3u
SEQ NO.		1218	1218	1218	1218		1219

PDB annotation	PHOSPHORYLATION, HEAT REPEAT	SCAFFOLD PROTEIN SCAFFOLD PROTEIN, PP2A, PHOSPHORYLATION, HEAT REPEAT	SCAFFOLD PROTEIN SCAFFOLD PROTEIN, PP2A, PHOSPHORYLATION, HEAT REPEAT	TRANSPORT PROTEIN SERINE-RICH RNA POLYMERASE I SUPPRESSOR PROTEIN; ARM REPEAT	TRANSPORT PROTEIN SERINE-RICH RNA POLYMERASE I SUPPRESSOR PROTEIN; ARM REPEAT	NUCLEAR IMPORT RECEPTOR KARYOPHERIN ALPHA; NUCLEAR IMPORT RECEPTOR, NUCLEAR LOCALIZATION SIGNAL, 2 ARMADILLO REPEATS, AUTOINHIBITION, INTRASTERIC REGULATION	NUCLEAR IMPORT RECEPTOR KARYOPHERIN ALPHA; NUCLEAR IMPORT RECEPTOR, NUCLEAR LOCALIZATION SIGNAL, 2 ARMADILLO REPEATS, AUTOINHIBITION, INTRASTERIC REGULATION	SMALL GTPASE KARYOPHERIN BETA, P9S SMALL GTPASE, NUCLEAR TRANSPORT RECEPTOR	STRUCTURAL PROTEIN ARMADILLO REPEAT, BETA-
Coumpound		PROTEIN PHOSPHATASE PP2A; CHAIN: A, B;	PROTEIN PHOSPHATASE PP2A; CHAIN: A, B;	KARYOPHERIN ALPHA; CHAIN: A, B; MYC PROTO- ONCOGENE PROTEIN; CHAIN: C, D, E, F;	KARYOPHERIN ALPHA; CHAIN: A, B; MYC PROTO- ONCOGENE PROTEIN; CHAIN: C, D, E, F;	IMPORTIN ALPHA; CHAIN: A;	IMPORTIN ALPHA; CHAIN: A;	RAN; CHAIN: A, C; IMPORTIN BETA SUBUNIT; CHAIN: B, D;	BETA-CATENIN; CHAIN: NULL;
SEQFOL D score						118.96			
PMF score		0.23	-0.07	1.00	0.86		0.53	-0.15	0.06
Verify score		0.07	9.0	0.36	0.57		0.50	0.01	0.51
Psi Blast		1.6e-09	1.6e-45	1.7e-10	1.4e-44	1.3e-43	1.3e-43	4.8e-15	1.1e-39
END AA		643	625	473	643	628	643	633	643
STAR T AA		320	71	211	279	179	272	318	239
CHAI N ID		Ą	4	Ą	Ą	¥	∢	В	
PDB ID		1b3u	1b3u	lee4	1ce4	l iaí	lial	libr	2bct
SEQ NO.		1219	1219	1219	1219	1219	1219	1219	1219

	z	Q	 	<u> </u>	_				ம	ଜ
_	CATENIN, STRUCTURAL PROTEIN	ARMADILLO REPEAT ARMADILLO REPEAT, BETA-CATENIN, CYTOSKELETON	OXIDOREDUCTASE FATTY ACID HYDROXYLASE; FATTY ACID MONOOXYGENASE, HEMOPROTEIN, P450 REMARK	OXIDOREDUCTASE (OXYGENASE)		OXIDOREDUCTASE FATTY ACID HYDROXYLASE; FATTY ACID MONOOXYGENASE, HEMOPROTEIN, P450 REMARK	OXIDOREDUCTASE FATTY ACID HYDROXYLASE; FATTY ACID MONOOXYGENASE, HEMOPROTEIN, P450 REMARK	OXDOREDUCTASE PROGESTERONE 21- HYDROXYLASE, CYPIIC5 P450 1, MEMBRANB PROTEIN, PROGESTERONE 21- HYDROXYLASE, BENZO(A) 2 PYRENE HYDROXYLASE, PSTRADIOL 2-HYDROXYLASE, P450, CVPC5.	OXIDOREDUCTASE NITRIC OXIDE REDUCTASE, CYTOCHROME P450NOR	OXIDOREDUCTASE (OXYGENASE)
PDB annotation	TURAL	ARMADILLO REPEAT AR REPEAT, BETA-CATENIN, CYTOSKELETON	OXIDOREDUCTASE FATTY AC HYDROXYLASE; FATTY ACID MONOOXYGENASE, HEMOPROTEIN, P450 REMARK	SE (OX)		OXIDOREDUCTASE FATTY AC HYDROXYLASE; FATTY ACID MONOOXYGENASE, HEMOPROTEIN, P450 REMARK	OXIDOREDUCTASE FATTY ACHYDROXYLASE; FATTY ACID MONOOXYGENASE, HEMOPROTEN, P450 REMARK	OXIDOREDUCTASE PROGESTERONE 21- HYDROXYLASE, CYPIIC5 P450 MEMBRANE PROTEIN, PROGESTERONE 21- HYDROXYLASE, BENZO(A) 2 PYRENE HYDROXYLASE, PSTRADIOL 2-HYDROXYLASE, P450, CVP2C5	OXIDOREDUCTASE NITRIC C REDUCTASE, CYTOCHROME P450NOR	SE (OX)
PDB ar	STRUC	LO REP SETA-C LETON	DUCTA (LASE; YGENA YTEIN, P	DUCTA		DUCTA: /LASE; YGENA YTEIN, P	DUCTA (LASE; YGENA YTEN, P	DUCTA ERONE 7LASE, NE PRO' ERONE 7LASE, YDRO) 2L 2-HY	OUCTA: SE, CYI	DUCTA
	TENIN,	ARMADILLO REP REPEAT, BETA-C CYTOSKELETON	OXIDOREDUCTASE HYDROXYLASE; FA MONOOXYGENASE HEMOPROTEN, P45	IDORE		OXIDOREDUCTASE HYDROXYLASE; FA MONOOXYGENASE HEMOPROTEN, P45	OXIDOREDUCTASE HYDROXYLASE; FA MONOOXYGENASE HEMOPROTEN, P45	OXIDOREDUCTÁSE PROGESTERONE 21- HYDROXYLASE, CYPII MEMBRANE PROTEIN, PROGESTERONE 21- HYDROXYLASE, BENZ PYDROXYLASE, BENZ PYRENE HYDROXYLA PYRENE HYDROXYLA PYRENE HYDROXYLA PASTADIOL 2-HYDROJ PASTO CYPOCS	OXIDORE REDUCTA P450NOR	IDORE
,	S			ô	_		 	S H H H Y H Y S 3 4 4	Q N X	ŏ
		4: NULI	HAIN: A	VF; OXA 6		HAIN: A	HAIN:	ķ	rase;	YF; OXA 6
Coumpound		ı; CHAII	P450; C	P450 EF NULL 1		P450; C	P450; C	P450 2C	REDUC	P450 ER NULL
Coum		ATENIN	ROME	ROME CHAIN:		коме	IROME	ROME A;	OXIDE I	ROME THAIN:
		BETA-CATENIN; CHAIN: NULL;	CYTOCHROME P450; CHAIN: A, B;	CYTOCHROME P450 ERYF; 10XA 5 CHAIN: NULL 10XA 6		CYTOCHROME P450; CHAIN: A, B;	CYTOCHROME P450; CHAIN: A, B;	CYTOCHROME P450 2C5; CHAIN: A;	NITRIC OXIDE REDUCTASE; CHAIN: A;	CYTOCHROME P450 ERYF; 10XA 5 CHAIN: NULL 10XA 6
SEQFOL D score			1							
SEQ D st	L		174.17	94.76						
PMF		0.24				0.04	0.29	0.99	0.05	0.28
Verify score		0.46				-0.20	-0.23	-0.02	-0.08	-0.40
Psi Blast		3.2e-35	9.6e-53	3.2e-24		1.3e-18	3.4e-36	3.2e-92	1.7e-21	6.8e-33
	_	3.20	9.6	3.20		13,	3.4	3.2	1.7	6.8
END		643	486	486	L	324	318	325	318	318
STAR T AA		772	19	27		35	19	31	48	61
CHAI			Ą]		Ą	4	∢	A	
PDB ID		3bct	1bu7	loxa		1bu7	1bu7	1dt6	1526	loxa
SEQ Sign		1219	1221	1221		1222	1222	1222	1222	1222

								_	_						_								,				_
PDB annotation	Cum i domo da Oragi da rayion	IOXIN BINDING PROTEIN I WO DOMAINS: BETA PROPELLER AND ALPHA/BETA FOLD	TRANSCRIPTION INHIBITOR BETA- PROPELLER		TRANSCRIPTION INHIBITOR BETA- PROPELLER		TRANSCRIPTION INHIBITOR BETA- PROPELLER	ACO THE TAX COM	COMPLEX (GIF-	BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT:	GAMMAI. TRANSDUCIN GAMMA	SUBUNIT; COMPLEX (GTP-	BINDING/TRANSDUCER), G	PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP-	BINDING/TRANSDUCER) BETA1,	TRANSDUCIN BETA SUBUNIT;	GAMMAI, TRANSDUCIN GAMMA	SUBUNIT; COMPLEX (GTP-	BINDING/TRANSDUCER), G	PROTEIN, HETEROTRIMER 2	SIGNAL TRANSDUCTION	COMPLEX (GTP-	BINDING/TRANSDUCER) BETA1,	TRANSDUCIN BETA SUBUNIT;	GAMMAI, TRANSDUCIN GAMMA	SUBUNITI: COMPLEX (GIP-
Coumpound	THE TAXABLE PARTY OF THE TOTAL	IOLB PROIEIN, CHAIN: A;	TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A,	B, C;	TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A,	B, C;	TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A, P. C.	, 'c', 'c', 'c', 'c', 'c', 'c', 'c', 'c	GI-ALPHA/GI-ALPHA	CHIMERA; CHAIN: A; GT- BETA: CHAIN: B: GT-GAMMA:	CHAIN: G:				GT-ALPHA/GI-ALPHA	CHIMERA; CHAIN; A; GT-	BETA; CHAIN: B; GT-GAMMA;	CHAIN: G;					GT-ALPHA/GI-ALPHA	CHIMERA; CHAIN: A; GT-	BETA; CHAIN: B; GT-GAMMA;	CHAIN: G;	
SEQFOL D score								,,	113.11																		
PMF score	2	5 5 7	1.00		0.29		1.00								0.53								1.00				
Verify score	, ,	-0.00	0.57		0.40		0.38								0.14								25.0				
Psi Blast	0.0000	0.00032	4.8e-73		1.3e-58		1.6e-66		1.56-77						1.3e-77								4.8e-54				
END	36	352	431		285		373	200	2/2						328								431				
STAR T AA	95	051	116		₩		9	ç	71						14								166				
CHAI N ID	-	∢	A		∢		¥		1				. —		В		. —						В				
PDB ID		lorz	lerj		lerj		Tej.		1081					,	lgot	1		_					1got				_
SEQ ID NO:		/221	1227		1227		1227	1	777						1227								1227				

										_				_								
PDB annotation	BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION		IMMUNOGLOBULIN IMMUNOGLOBULIN, C REGION, V REGION	CHAPERONE/STRUCTURAL PROTEIN CHAPERONE ADHESIN DONOR STRAND	COMPLEMENTATION, 2 CHAPERONE/STRUCTURAL PROTEIN	CHAPERONE/STRUCTURAL	PROTEIN CHAPERONE ADHESIN DONOR STRAND	COMPLEMENTATION, 2	PROTEIN		LIGASE CYCLIN A/CDK2- ASSOCIATED P44: CVCI IN A/CDK2.	ASSOCIATED P19; SKP1, SKP2, F-	BOX, LRRS, LEUCINE-RICH	REPEATS, SCF, 2 UBIQUITIN, E3,	UBIQUITIN PROTEIN LIGASE	HELICASE DNA REPAIR, DNA	REPLICATION, SOS RESPONSE,	HELICASE, 2 ATP-BINDING, DNA-	BINDING	COMPLEX (HELICASE/DNA)	COMPLEX (HELICASE/DNA), HELICASE DNA UNWINDING	HYDROLASE/DNA ATP-DEPENDENT
Coumpound			ANTI-IDIOTYPIC FAB 409.5.3 (IGG2A) FAB; CHAIN: A, B, L, H	PAPD-LIKE CHAPERONE FIMC; CHAIN: A, C, E, G, I, K, M, O; MANNOSE-SPECIFIC ADHESIN	FIMH; CHAIN: B, D, F, H, J, L, N, P;	PAPD-LIKE CHAPERONE FIMC:	CHAIN: A, C, E, G, I, K, M, O; MANNOSE-SPECIFIC ADHESIN	FIMH; CHAIN: B, D, F, H, J, L, N, p.			SKP2; CHAIN: A, C; SKP1;					PCRA; CHAIN: NULL;				ATP-DEPENDENT DNA	HELICASE REP; CHAIN: A, B; DNA CHAIN: C:	HELICASE PCRA; CHAIN: A. F.
SEQFOL D score																						90.62
PMF score			0.35	-0.18		-0.19					0.13		·			0.58				9.0	•	
Verify score			-0.14	-0.00		0.11					-0.25					-0.22				-0.55		
Psi Blast			0.0068	1.2e-15		6.8e-16					0.00034					3.2e-68				1.be-47		1.3e-62
END			518	580		701					293					960			į	7/8		166
STAR T AA			413	321		408					214					430				44		436
CHAI N ID			H	æ		В					∢				1				1			Ą
FDB ID		7	laif	1qun		Iqun					1£2				 :	Pg.			+	r nag		2pjr
SEQ ID NO:			1235	1235	7	1235					1236				į	1236			7200	0671		1236

PDB annotation	HELICASE PCRA; ATP-DEPENDENT HELICASE PCRA; HELICASE PCRA, HYDROLASE, DNA, PRODUCT COMPLEX	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2	MOLECOLAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE)	COMPLEX (RI-ANG), HYDROLASE 2	MOLECULAR RECOGNITION,	EPITOPE MAPPING, LEUCINE-KICH 3 REPEATS	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEINRNA), RNA, SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA,	COMPLEX OTICI FAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA,	SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR	PROTEINRNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA,
Coumpound	HELICASE PCRA; CHAIN: B, G; DNA (5'-D(*TP*TP*TP*TP*T)-3'); CHAIN: C, D; DNA (5'-D(*GP*C)- 3'); CHAIN: H; DNA (5'- D(*AP*CP*TP*GP*C)-3'); CHAIN: I;	RIBONUCLEASE INHTBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;		RIBONUCLEASE INHIBITOR;	CHAIN: B, E;		¥	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN; A, C; U2 B";	CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;	113 BNA HAIBBIN IV: CHAIN: O	R: U2 A': CHAIN: A. C: U2 B":	CHAIN: B, D;		U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;
SEQFOL D score																		
PMF score		68.0		0.09				0.35		0.51	_		0.71				0.04	
Verify score		-0.01		0.04				0.04		0.28			92.0	2			0.04	
Psi Blast		3.4e-22		6.4e-07				3.4e-13		3.2e-07			16.028	6.75.4			3.4e-20	
END		213		299			-	151		101			197	ì			196	
STAR T AA		 10		126				12		20			41	<u> </u>			72	
CHAI N ID		Ą		Ą				A		Ą			<	ζ_		_	¥	
PDB TD		1a4y	•	1a4y				1a9n		1a9n			1001	19711			1a9n	
SEQ NO:		1237		1237				1237		1237			1227	1621			1237	

	TEIN	, RNA,	, RNA,	E RICH NG, CELL	E RICH NG, CELL	E RUCH NG, CELL	ISFERASE, PHA	ISFERASE,	
PDB annotation	SNRNP, RIBONUCL EOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA,	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA,	CELL ADHESION LEUCING RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N- FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N- FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT	TRANSFERASE CRYSTAL STRUCTURE, RAB
	SNRNP,RIB	COMPLEX (NUCLEAR PROTEIN/RNA) COMP (NUCLEAR PROTEIN/RNA)	COMPLEX (NUCLEAR (NUCLEAR PROTEIN) (NUCLEAR PROTEIN)	CELL ADHI REPEAT, CA	CELL ADHI REPEAT, CA ADHESION	CELL ADHE REPEAT, CA ADHESION	TRANSFERASE CR STRUCTURE, RAB GERANYLGERAN 2.0 A 2 RESOLUTIC FORMYLMETHION SUBUNIT, BETA SI	TRANSFERASE CR STRUCTURE, RAB GERANYLGERAN 2.0 A 2 RESOLUTIC FORMYLMETHION SUBUNIT, BETA SI	TRANSFERASE CR STRUCTURE, RAB
Coumpound		U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q. R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;	RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT; CHAIN: A, C; RAB GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN: B, D;	RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT; CHAIN: A, C; RAB GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN: B, D:	RAB GERANYLGERANYLTRANSFE
SEQFOL D score									
PMF		0.35	0.66	0.71	0.07	-0.02	0.96	0.94	-0.03
Verify score		0.49	0.05	-0.14	-0.20	0.15	0.35	0.47	0.20
Psi Blast		3.2e-07	5.1e-24	3.2e-25	6.8e-29	6.4e-21	1.6e-11	3.26-13	4.8e-10
END		101	192	187	221	268	100	233	278
STAR T AA		20	51	3	44	75	11	130	160
CHAI N ID		ပ	ပ	A	<	∢	¥	A	V
PDB ID		1a9n	1a9n	140b	140b	140b	1dce	1 dce	1dce
SEQ ID NO:		1237	1237	1237	1237	1237	1237	1237	1237

PDB annotation	GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N- FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N- FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	LIGASE CYCLIN A/CDK2- ASSOCIATED P45; CYCLIN A/CDK2-
Coumpound	RASE ALPHA SUBUNIT; CHAIN: A, C; RAB GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN: B, D;	RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT; CHAIN: A, C; RAB GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN: B, D;	OUTER ARM DYNEIN; CHAIN: A;	OUTER ARM DYNEIN; CHAIN: A;	OUTER ARM DYNEIN; CHAIN: A;	NUCLEAR RNA EXPORT FACTOR I; CHAIN: A, B;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	SKP2; CHAIN: A, C; SKP1; CHAIN: B, D;
SEQFOL D score								
PMF		0.33	0.09	0.22	0.45	0.65	0.60	0.46
Verify score.		0.21	-0.31	-0.20	-0.54	-0.03	0.25	0.15
Psi Blast		3.2e-11	4.8e-12	3.2e-14	1.6e-11	1.1e-06	1.1e-06	1.2e-25
END		169	146	252	169	192	192	206
STAR T AA		44	11	130	37	132	132	10
CHAI N TD		¥	Ą	Ą	Ą	Ą	B	A
PDB 1D		1dce	6sp1	6sp1	6sp1	1691	1601	1fs2
SEQ ID NO:		1237	1237	1237	1237	1237	1237	1237

PDB annotation	ASSOCIATED P19; SKP1, SKP2, F-BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2- ASSOCIATED P45; CYCLIN A/CDK2- ASSOCIATED P19; SKP1, SKP2, F- BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY
Coumpound		SKP2; CHAIN: A, C; SKP1; CHAIN: B, D;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	SERINETHREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINETHREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;
SEQFOL D score							
PMF score		0.22	0.82	0.80	0.51	0.76	0.23
Verify score		0.34	-0.03	0.10	0.27	0.30	0.01
Psi Blast		1.1e-06	1.5e-28	1e-18	6.4e-14	4.8e-13	8e-13
END		294	223	279	250	296	153
STAR T AA		130	19	119	133	153	20
CEAI N ID		∢					
EDB ID		162	2bnh	1a1 <i>7</i>	1a1 <i>7</i>	1817	1a17
SEQ No.		1237	1237	1238	1238	1238	1238

PDB annotation	STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS,
Coumpound		SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINEJTHREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;
SEQFOL D score							1	
PMF .		0.99	0.94	0.80	0.52	0.11	0.74	0.37
Verify score		0.31	0.56	0.22	0.22	0.18	-0.14	0.41
Psi Blast		5.1e-19	9.6e-13	9.6e-13	3.2e-14	1.7e-15	1.7e-18	4.8e-13
END		368	348	392	416	142	414	421
STAR T AA		221	232	263	290	29	300	338
CHAI								
PDB CI		1a17	lal7	1a17	1817	lal7	1817	la17
SEQ NO.		1238	1238	1238	1238	1238	1238	1238

PDB annotation	TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRICTIRE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP, HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP, HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	TRANSFERASE FTASE; FTASE, PFT, PFTASE, FARNESYLTRANSFERASE, FARNESYL 2 TRANSFERASE, CAAX, RAS, CANCER	TRANSFERASE FTASE; FTASE, PFT, PFTASE, FARNESYLTRANSFERASE, FARNESYL 2 TRANSFERASE, CAAX, RAS, CANCER
Coumpound		SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE S; CHAIN: NULL;	SERINETHREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	FARNESYLTRANSFERASE (ALPHA SUBUNIT); CHAIN: A; FARNESYLTRANSFERASE (BETA SUBUNIT); CHAIN: B; K-RAS4B PEPTIDE SUBSTRATE; CHAIN: P;	FARNESYLTRANSFERASE (ALPHA SUBUNIT); CHAIN: A; FARNESYLTRANSFERASE (BETA SUBUNIT); CHAIN: B; K- RAS4B PEPTIDE SUBSTRATE; CHAIN: P;
SEQFOL D score							
PMF score		0.70	0.41	0.58	0.65	0.60	0.18
Verify score		0.18	0.34	0.12	0.12	-0.23	-0.04
Psi Blast		1.7e-15	8e-10	4.8e-11	3.4e-17	4.8e-07	3.4e-15
END AA		184	175	209	212	410	266
STAR T AA		95	63	85	68	217	28
CHAI N ID						4	4
PDB ID		1a17	1a17	la17	1a17	1484	148d
SEQ TO NO		1238	1238	1238	1238	1238	1238

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PDB annotation	SIGNALLING COMPLEX RACI; P67PHOX; SIGNALLING COMPLEX, GTPASE, NADPH OXIDASE, PROTEIN-PROTEIN 2 COMPLEX, TPR MOTIF	SIGNALLING COMPLEX RAC1; P67PHOX; SIGNALLING COMPLEX, GTPASE, NADPH OXIDASE, PROTEIN-PROTEIN 2 COMPLEX, TPR MOTIF	SIGNALLING COMPLEX RAC1; P67PHOX; SIGNALLING COMPLEX, GTPASE, NADPH OXIDASE, PROTEIN-PROTEIN 2 COMPLEX, TPR MOTIF	SIGNALLING COMPLEX RACI; P67PHOX; SIGNALLING COMPLEX, GTPASE, NADPH OXIDASE, PROTEIN-PROTEIN 2 COMPLEX, TPR MOTIF	SIGNALLING COMPLEX RAC1; P67PHOX; SIGNALLING COMPLEX, GTPASE, NADPH OXIDASE, PROTEIN-PROTEIN 2 COMPLEX, TPR MOTIF	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN,
Coumpound	RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 1; CHAIN: A; NEUTROPHIL CYTOSOL FACTOR 2 (NCF-2) CHAIN: B;	RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 1; CHAIN: A; NEUTROPHIL CYTOSOL FACTOR 2 (NCF-2) CHAIN: B;	RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 1; CHAIN: A; NEUTROPHIL CYTOSOL FACTOR 2 (NCF-2) CHAIN: B;	RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 1; CHAIN: A; NEUTROPHIL CYTOSOL FACTOR 2 (NCF-2) CHAIN: B;	RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 1; CHAIN: A; NEUTROPHIL CYTOSOL FACTOR 2 (NCF-2) CHAIN: B;	TPR2A-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR2A-DOMAIN OF HOP;
SEQFOL D score								
PMF score	0.48	0.76	0.98	0.86	0.21	0.47	1.00	96.0
Verify score	0.15	0.40	0.14	0.05	0.12	0.38	0.24	0.02
Psi Blast	1.4e-09	8e-10	4.8e-09	4.8 c -09	0.00016	6.4e-15	6.4e-15	1.6e-10
END	278	322	379	417	244	247	252	283
STAR T AA	135	189	229	290	62	133	161	195
CHAI N ID	B	B	В	В	В	Y	V	A
PDB ID	1696	1e96	1e96	1e96	1e96	ielr	lelr	lelr
SEQ NO:	1238	1238	1238	1238	1238	1238	1238	1238

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PDB annotation	PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN
Conmpound	CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR2A-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR2A-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR2A-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPRI-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPR I-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;
SEQFOL D score									
PMF score		66:0	0.74	0.29	0.55	0.33	0.99	0.96	1.00
Verify score		0.47	0.27	0.13	0.54	0.31	0.46	0.47	0.63
Psi Blast		4.8e-12	3.2e-13	4.8e-11	4.8e-12	1.10-11	1.1e-13	1.3e-12	3.2e-10
END		326	355	117	419	185	221	262	296
STAR T AA		228	262	78	334	æ	135	153	196
CHAI N ID		∢	V	∢	¥.	¥	¥	¥	А
PDB UD		lelr	leir	leir	lelr	lelr	lelw	lelw	lelw
SEQ B B		1238	1238	1238	1238	1238	1238	1238	1238

PDB annotation	BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP, PEROXIN-5, PTS1 PROTEIN- PEPTIDE COMPLEX, TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP, PEROXIN-5, PTS1 PROTEIN-
Coumpound		TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPRI-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPRI-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPRI-DOMÁIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPRI-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	PEROXISOMAL TARGETING SIGNAL 1 RECEPTOR; CHAIN: A, B; PTS1-CONTAINING PEPTIDE; CHAIN: C, D;	PEROXISOMÁL TARGETING SIGNAL I RECEPTOR, CHAIN: A, B; PTSI-CONTAINING
SEQFOL D score									
PMF score		1.00	0.57	0.03	0.98	0.21	0.82	1.00	0.96
Verify score		0.76	0.32	0.25	0.23	0.29	0.32	0.32	0.07
Psi Blast		4.8e-13	4.8e-10	6.4e-14	3.2e-15	I.1e-11	6.4e-10	9.6e-38	3.2e-09
END AA		332	122	66	408	419	155	413	420
STAR T AA		236	25	2	304	342	61	991	313
CHAI N ID		¥	¥	Ą	A	Ą	Ą	∢	A
PDB ID		lelw	lelw	leľw	lelw	lelw	Ielw	1 fch	1fch
SEQ NO:	_	1238	1238	1238	1238	1238	1238	1238	1238

PDB annotation	PEPTIDE COMPLEX, TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP, PEROXIN-5, PTS1 PROTEIN- PEPTIDE COMPLEX,	TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- RP PPROXIN, 5 PTS1 PROTEIN.	PEPTIDE COMPLEX,	TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	SIGNALING PROTEIN PEROXISMORE RECEPTOR I, PTSI- BP. PEROXIN-5. PTSI PROTEIN-	PEPTIDE COMPLEX,	TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	CELL ADHESION PROTEIN EPITHELIAL CADHERIN DOMAINS 1	AND 2, ECAD12; CADHERIN, CELL	ADHESION PROTEIN, CALCIUM RINDING PROTEIN	CELL ADHESION PROTEIN	AND 2 ECADIERIN CELL	ADHESION PROTEIN, CALCIUM	BINDING PROTEIN	CELL ADHESION PROTEIN EPITHELIAL CADHERIN DOMAINS 1
Coumpound	PEPTIDE; CHAIN: C, D;	PEROXISOMAL TARGETING SIGNAL I RECEPTOR; CHAIN: A, B; PTSI-CONTAINING PEPTIDE; CHAIN: C, D;		PEROXISOMAL TARGETING SIGNAL I RECEPTOR; CHAIN: A R: PTS!-CONTAINING	PEPTIDE; CHAIN: C, D;		PEROXISOMAL TARGETING SIGNAL I RECEPTOR; CHAIN: A. B: PTSI-CONTAINING	PEPTIDE; CHAIN: C, D;		E-CADHERIN; CHAIN: A, B;			E-CADHERIN; CHAIN: A, B;				E-CADHERIN; CHAIN: A, B;
SEQFOL D score																	
PMF score		1.00		1.00		_	1.00			0.55			0.76				0.64
Verify score		0.48		0.38		1	0.46		;	0.10			-0.19				0.21
Psi Blast		6.4e-31		1.3e-29			4.8c-29			3.2e-20			6.8e-27				4.8e-17
END		273		220	,		345			152			253				255
STAR T AA		34		4			86			34			52				8
CHAI N ID		Ą		A			V			∢			Ą	_			4
PDB ID		1 fch		1fch			1 fch			ledh			ledh				ledh
SEQ NO.		1238		1238			1238			1241			1241				1241

PDB CHAI STAR END Psi Blast D ND TAA AA	STAR END TAA AA	END		Psi Blast		Verify	PMF	SEQFOL D score	Coumpound	PDB annotation
										AND 2, ECAD12; CADHERIN, CELL ADHESION PROTEIN, CALCIUM BINDING PROTEIN
Inci B 206 253 5.1e-06 -0.07	206 253 5.1e-06	253 5.1e-06	5.1e-06		-0.07		0.04		N-CADHERIN; INCI 3	CELL ADHESION PROTEIN CADHERIN INCI 13
Inci B 56 152 1.7e-05 0.15	56 152 1.7e-05	152 1.7e-05	1.7e-05		0.15		0.31		N-CADHERIN; INCI 3	CELL ADHESION PROTEIN CADHERIN INCI 13
Incj A 34 152 1.4e-21 -0.20	34 152 1.4e-21	152 1.4e-21	1.4e-21		-0.20		0.28		N-CADHERIN; CHAIN: A;	CELL ADHESION PROTEIN CELL ADHESION PROTEIN
Incj A 43 253 1.7e-21 -0.03	43 253 1.7e-21	253 1.7e-21	1.7e-21		-0.03		9.65		N-CADHERIN; CHAIN: A;	CELL ADHESION PROTEIN CELL ADHESION PROTEIN
1ncj A 90 255 6.4e-17 -0.20	90 255 6.4e-17	255 6.4e-17	6.4e-17		-0.20		0.35		N-CADHERIN; CHAIN: A;	CELL ADHESION PROTEIN CELL ADHESION PROTEIN
1qu0 A 358 549 3.4e-20 -0.08	358 549 3.4e-20	549 3.4e-20	3.4e-20		-0.08		0.40		LAMININ ALPHA2 CHAIN; CHAIN: A, B, C, D;	METAL BINDING PROTEIN BETA SANDWICH, CALCIUM-BINDING PROTEIN, METAL BINDING 2 PROTEIN
1suh 43 154 1.7e-07 -0.22	154 1.7e-07	154 1.7e-07	1.7e-07		-0.22		0.04		EPITHELIAL CADHERIN; CHAIN: NULL;	CELL ADHESION UVOMORULIN; CADHERIN, CALCIUM BINDING, CELL ADHESION
1a5e 132 262 3.4e-30 0.56	262 3.4e-30	262 3.4e-30	3.4e-30		0.56	,	1.00		TUMOR SUPPRESSOR P16INK4A; CHAIN: NULL;	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT
1a5e 166 330 3.4e-30 0.40	330 3.4e-30	330 3.4e-30	3.4e-30		0.40		1.00		TUMOR SUPPRESSOR P16INK4A; CHAIN: NULL;	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT
1a5e 202 359 5.1e-29 0.84	359 5.1e-29	359 5.1e-29	5.1e-29		0.84		1.00		TUMOR SUPPRESSOR P16INK4A; CHAIN: NULL;	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT
1a5e 233 385 1.5e-29 0.39	385 1.5e-29	385 1.5e-29	1.5e-29		0.39		0.93		TUMOR SUPPRESSOR PIGINK4A; CHAIN: NULL;	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT
1a5e 233 393 3.4e-30	393	393	Н	3.4e-30				66.97	TUMOR SUPPRESSOR	ANTI-ONCOGENE CELL CYCLE,

PDB annotation	ANTI-ONCOGENE, REPEAT, ANK REPEAT	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX	(TRANSCRIPTION REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	ANKYRIN REPEATS.	TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	GABPBETA1; COMPLEX	(IKANSCKIPIION BECIT ATTORIONALY DNA BINDING	2 NIICI FAR PROTFIN FTS DOMAIN	ANKYRIN REPEATS,	TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS,	TRANSCRIPTION 3 FACTOR
Coumpound	P16INK4A; CHAIN: NULL;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN; B;	DNA; CHAIN: D, E;		GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;			1	GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;				GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING PROTEIN BETA 1: CHAIN: B.	DNA: CHAIN: D. E.				
SEQFOL D score		, i																						
PMF score		1.00			1.00						1.00							1.00					•	
Verify score		1.05			0.93						0.97							0.93						
Psi Blast		10-43			le-39						9.6e-41							1.6e-38						
END		298			165						298							165						
STAR T AA		145			14						150							17						
CHAI N ID		В			В						В							В						
PDB ID		lawc			lawc						lawc							1awc						
SEQ NO.		1246			1246						1246							1246						

PDB annotation	A; COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	A; COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	A; COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	A; COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	
Coumpound	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING
SEQFOL D score				90.97	
PMF score	1.00	1.00	00.1		0.23
Verify score	0.84	0.55	0.77		0.21
Psi Blast	3.4e-39	9.6e-35	10-40	16-43	3.2e-32
END	332	332	362	363	395
STAR T AA	83	184	212	212	217
CHAI N ID	В	Д	В	Д	В
PDB ID	lawc	lawc	lawc	Та	lawc
SEQ No.	1246	1246	1246	1246	1246

GABPBETAI; COMPLEX (TRANSCRIPTION REGULATIONDNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATIONIDNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATIONIDNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR
PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR;
				87.65	
	1.00	1.00	00'1		1.00
	0.88	0.55	0.68		0.38
	1.66-33	8.5e-39	9.6e-37	8e-30	8e-30
	132	199	199	301	301
	3	45	20	145	153
	g	g:	В		
	lawc	lawc	lawc	1bd8	1bd8
	1246	1246	1246	1246	1246
	PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	1awc B 3 132 1.6€-33 0.88 1.00 GA BINDING PROTEIN ALPHA; CHAIN: a; GA BINDING CHAIN: a; GA BINDING PROTEIN BETA 1; CHAIN: B; DINA; CHAIN: D, E;	Iawc B 3 132 1.6e-33 0.88 1.00 GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN ALPHA; CHAIN: B; DNA; CHAIN: B; Iawc B 45 199 8.5e-39 0.55 1.00 GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN B; DNA; CHAIN: B; DNA; CHAIN: D, E; DNA; CHAIN: D, E; DNA; CHAIN: D, E;	Iawc B 3 132 1.6e-33 0.88 1.00 GA BINDING PROTEIN ALPHA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; CHAIN: B; DNA; CHAIN: B; CHAIN: B; CHAIN: B; DNA; CHAIN: B; CHAIN: B; DNA; CHAIN: BNA; CHAIN: BNA; CHAIN: BNA; CHAIN: BNA; CHAI	lawc B 3 132 1.6e-33 0.88 1.00 GA BINDING PROTEIN ALPHA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; CHAIN: B; DNA; CHAIN: B; DNA; CHAIN: B; CHAIN: B; DNA; CHAIN: D, E; CHAIN: NULL;

PDB annotation	SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	COMPLEX (KINASE/ANTI- ONCOGENE) CDK6; P16NK44, MTS1; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, MULTIPLE TUMOR SUPPRESSOR, 3 MTS1, COMPLEX (KINASE/ANTI- ONCOGENE) HEADER	COMPLEX (INHIBITOR PROTEINKINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEINKINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEINKINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX
Coumpound	CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; MULTIPLE TUMOR SUPPRESSOR; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;
SEQFOL D score					78.94	
PMF score		1.00	0.10	1.00		1.00
Verify score		0.57	0.10	0.93		0.73
Psi Blast		1.7e-28	3.4e-38	1.7e-39	6.8e-40	3.4e-38
END		365	304	170	303	338
STAR T AA		244	114	13	147	183
CHAI		B	В	æ	В	В
aga GI		1bi7	1blx	1blx	l blx	1blx
SEQ NO		1246	1246	1246	1246	1246

PDB annotation	(INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEN/KINASE)	COMPLEX (INHIBITOR PROTEINKINASE) INHIBITOR	PROTEIN, CYCLIN-DEPENDENT KINASP CFLL CYCLP 2 CONTROL	ALPHA/BETA, COMPLEX	(INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18-	P18INK4C, TUMOR, SUPPRESSOR,	CYCLIN- 2 DEPENDENT KINASE,	HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C: CELL CYCLE INHIBITOR.	P18INK4C, TUMOR, SUPPRESSOR,	CYCLIN- 2 DEPENDENT KINASE,	HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18-	INTAC, CELL CICLE INTIBILOR, P18INK4C, TUMOR, SUPPRESSOR,	CYCLIN: 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR
Coumpound	D	CYCLIN-DEPENDENT KINASE C 6; CHAIN: A; P19INK4D; CHAIN: P B; P	K A (I	CYCLIN-DEPENDENT KINASE CYCLIN-DEPENDENT KINASE CHAIN: A; P19INK4D; CHAIN: P19B;		CYCLIN-DEPENDENT KINASE C 6; CHAIN: A; P19INK4D; CHAIN: P			I) [CYCLIN-DEPENDENT KINASE H	•	0	\neg	CYCLIN-DEPENDENT KINASE H		0	+	INASE	8 INTIBILION, CITALIN: A, P	0 #
SEQFOL D score			:																	
PMF		1.00		1.00		1.00				1.00				1.00				1.00		
Verify score		0.89		0.70		1.03				0.78				0.97				0.87		
Psi Blast		1.7e-38		1.5e-38		6.8c-40				6.8e-37	·			1.6e-36				9.6e-37		
END		368		205		237				310				303				021		
STAR T AA		215	_	90		82				1 4 1				150				17		
CHAI N ID		Ф		m		В				∢				¥				₹		
PDB ID		16lx		Xi91		1blx				1bu9				1bu9				1bu9		
SEQ EQ		1246		1246		1246				1246				1246				1246		

	· · · · · · · · · · · · · · · · · · ·						
PDB annotation	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- DK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- DNK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE,
Coumpound	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;
SEQFOL D score							89.81
PMF score	1.00	0.99	1.00	1.00	0.51	1.00	
Verify score	0.61	0.25	0.63	0.79	0.47	0.94	
Psi Blast	1e-35	8e-33	3.4e-35	6.8e-33	3.4e-37	1.7e-39	1.7e-39
END AA	338	367	373	394	174	205	177
STAR T AA	181	184	215	243	£ .	44	6
CHAI N ID	¥	V	A	∢	∢	¥	<
PDB C1	1bu9	lbu9	lbu9	1bu9	1bu9	6nq1	1bu9
SEQ NO:	1246	1246	1246	1246	1246	1246	1246

PDB annotation	HORMONE/GROWTH FACTOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	TRANSCRIPTION FACTOR P65; PSOD; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65; PSOD; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	TRÁNSCRIPTION FACTOR P65; PSOD; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65;
Соитроипа		CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;
SEQFOL D score					83.68				
PMF score		1.00	1.00	1.00		1.00	0.92	0.35	1.00
Verify score		0.88	0.78	0.28		0.47	0.20	0.22	0.18
Psi Blast		6.4e-36	3.2e-36	3.2e-32	3.2e-36	4.8e-35	1.6e-30	1.6e-34	8e-43
END		302	169	366	236	186	346	404	232
STAR T AA		150	17	184	81	12	179	212	45
CHAI N ID		¥	A	¥	A	Q	Q	Ω	Ω
PDB ID		libb	lihb	1ihb	lihb	likn	likn	likn	1 ikn
SEQ NO.		1246	1246	1246	1246	1246	1246	1246	1246

PDB annotation	PSOD; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANK YRN 2 REPEAT HEI IX	COMPLEX (TRANSCRIPTION REGANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELLX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REGANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX
Coumpound	CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	MYOTROPHIN; CHAIN: NULL	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; 1-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;
SEQFOL D score		80.97	68.11					
PMF score				1.00	1.00	1.00	1.00	1.00
Verify score				0.69	0.81	0.55	0.62	0.65
Psi Blast		8e-43	9.6e-25	1.7c-48	1.4e-35	5.1e-47	1.7c-48	4.8e-30
END		253	130	311	186	338	367	346
STAR T AA		45	12	113	11	143	177	178
CHAI N ID		D		ш	æ	ш	ы	வ
PDB UD		1ikn	1myo	Infi	lnfi	Infi	1nfi	lnfi
SEQ EQ	Ö	1246	1246	1246	1246	1246	1246	1246

PDB annotation	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANK YRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT).
Coumpound	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;
SEQFOL D score					89.07		
PMF score	1.00	0.21	1.00	1.00		1.00	1.00
Verify score	0.85	0.26	0.53	0.53		0.74	0.66
Psi Blast	3.4e-38	9.6e-35	1.5e-44	1.7e-51	1.7e-51	1.6e-42	5.1e-50
END	170	404	394	238	242	232	278
STAR T AA	17	210	215	43	43	44	82
CHAI N ID	ம	ш	a	ப	ங	Э	ı
PDB ID	1n5	1nf	Infi	Infi	1nfi	Infi	Infi
SEQ ID NO:	1246	1246	1246	1246	1246	1246	1246

	\neg			- 1				
PDB annotation	ANKYRIN 2 REPEAT HELIX	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ANKYRIN REPEATS, CELL-CYCLE	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)		STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTBIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 22 TANDEM 3-HELLX COILED-COILS, STRUCTURAL PROTEIN	GROWTH FACTOR NEU DIFFERENTIATION FACTOR (RAT), ACETYLCHOLINE GROWTH FACTOR	
Coumpound		REGULATORY PROTEIN SW16; CHAIN: A, B;	P53; CHAIN: A; 53BP2; CHAIN: B;		ALPHA SPECTRIN; CHAIN: A, B, C;	ALPHA SPECTRIN; CHAIN: A, B, C;	HEREGULIN-ALPHA; CHAIN: NULL;	GROWTH FACTOR HEREGULIN-ALPHA (EPIDERMAL GROWTH FACTOR-LIKE DOMAIN) IHRE 3 (NMR, MINIMIZED AVERAGE STRUCTURE) IHRE 4
SEQFOL D score		60.99	69.71					
PMF					0.29	0.03	0.11	0.25
Verify score					-0.03	0.02	0.07	0.13
Psi Blast		1.3e-21	3.2e-18		5.1e-12	5.1e-07	0.0051	0.0051
END AA		320	398		591	159	150	150
STAR T AA		76	214		375	436	120	120
CHAI N ID		A	В		V	V		
PDB ID		lsw6	lycs		lcun	Icun	Ihae	1hre
SEQ El SO NO		1246	1246		1250	1250	1250	1250

SEQFOL D score

PDB annotation	ANTIFIBRINOLYTIC COMPLEX	MATRIX PROTEIN EXTRACELLULAR MATRIX,	CALCIUM-BINDING,	GLYCOPROTEIN, 2 REPEAT,	SIGNAL, MULTIGENE FAMILY, DISEASE MUTATION, 3 EGF-LIKE	DOMAIN, HUMAN FIBRILLIN-1	FRAGMENT, MATRIX PROTEIN	MATRIX PROTEIN	EXTRACELLULAR MATRIX,	CALCIUM-BINDING,	GLYCOPROTEIN, 2 REPEAT,	SIGNAL, MULTIGENE FAMILY,	DISEASE MUTATION, 3 EGF-LIKE	DOMAIN, HUMAN FIBRILLIN-1	FRAGMENT, MATRIX PROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	COMPLEX (BLOOD	COAGULATION/INHIBITOR)	CHRISTIMAS FACTOR; COMPLEX,	INHIBITOR, HEMOPHILIA/EGF,	BLOOD COAGULATION, 2 PLASMA,	SERINE PROTEASE, CALCIUM-	BINDING, HYDROLASE, 3	GLYCOPROTEIN	SERINE PROTEASE INHIBITOR	FACTOR XA INHIBITOR;	ANTISTASIN, CRYSTAL	STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE
Coumpound		FIBRILLIN; CHAIN: NULL;						FIBRILLIN; CHAIN: NULL;								LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	FACTOR IXA; CHAIN: C, L,; D-	PHE-PRO-ARG; CHAIN: I;							ANTISTASIN; CHAIN: NULL;			
SEQFOL D score																	132.10														
PMF score		0.04						-0.19								0.93		0.51	-0.03	-0.17								-0.14			
Verify		0.24						80.0								0.17		0.40	-0.00	0.10								0.34			
Psi Blast		1.6e-13						3.2e-10								8.5e-39	8.5e-39	1.6e-20	3.2e-18	3.2e-09								3.4e-17			
END		395						431								419	411	452	496	441								414			
STAR T AA		307						351								225	234	293	358	351								319			
CHAI N ID																				L											
PDB ID		1emn						lemn								1klo	1klo	1klo	1klo	1pfx								1skz			
SEQ NO:		1252						1252								1252	1252	1252	1252	1252			_					1252			

PDB annotation	INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE	BLOOD COAGULATION FACTOR STUART FACTOR, BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN			LYASE 2-PHOSPHO-D-GLYCERATE HYDROLASE; LYASE, GLYCOLYSIS	LYASE (CARBON-OXYGEN) 2- PHOSPHO-D-GLYCERATE DEHYDRATASE, IPDZ 6	PROTEIN KINASE INHIBITOR PKCI- 1, PROTEIN KINASE C INHIBITOR 1, HINT PROTEIN KINASE INHIBITOR, PKCI-1, HIT PROTEIN FAMILY, 2 HISTIDINE TRIAD PROTEIN FAMILY, NUCLEOTIDYL HYDROLASE, 3 NUCLEOTIDYL TRANSFERASE	PROTEIN KINASE INHIBITOR PKCI-
Coumpound		ANTISTASIN; CHAIN: NULL;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	METALLOTHIONEIN METALLOTHIONEIN ISOFORM II 4MT2 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	ENOLASE; CHAIN: A, B;	ENOLASE; IPDZ 4 CHAIN: NULL; IPDZ 5	PROTEIN KINASE C INTERACTING PROTEIN; CHAIN: NULL;	PROTEIN KINASE C
SEQFOL D score									144.01
PMF score		0.19	-0.18	0.00	-0.19	1.00	1.00	1.00	
Verify		0.16	0.14	-0.05	0.04	0.25	0.15	0.96	
Psi Blast		5.1e-10	3.2e-09	1.3e-09	4.8e-15	19-99-61	8e-63	9.6e-41	9.6e-41
END		425	448	428	492	134	137	163	163
STAR T AA		355	355	368	298	1.1	=	83	53
CHAI			ы		4	¥			
PDB		Iskz	1xka	4mt2	9wga	lone	1pdz	lkpf	Ikpf
SEQ NO:		1252	1252	1252	1252	1253	1253	1256	1256

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PDB annotation	I, PROTEIN KINASE C INHIBITOR I, HINT PROTEIN KINASE INHIBITOR, PKCI-1, HIT PROTEIN FAMILY, 2 HISTIDINE TRIAD PROTEIN FAMILY, NUCLEOTIDYL HYDROLASE, 3 NUCLEOTIDYL TRANSFERASE	NUCLEOTIDE-BINDING PROTEIN HINT, NUCLEOTIDE-BINDING PROTEIN	NUCLEOTIDE-BINDING PROTEIN HINT; NUCLEOTIDE-BINDING PROTEIN	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT	ANTI-ONCOGENE, REPEAT, ANK REPEAT	ANTI-ONCOGENE, REPEAT, ANK REPEAT	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR
Coumpound	INTERACTING PROTEIN; CHAIN: NULL;	HISTIDINE TRIAD NUCLEOTIDE-BINDING PROTEIN; CHAIN: NULL;	HISTIDINE TRIAD NUCLEOTIDE-BINDING PROTEIN; CHAIN: NULL;	TUMOR SUPPRESSOR P16INK4A; CHAIN: NULL;	TUMOR SUPPRESSOR P16INK4A; CHAIN: NULL;	TUMOR SUPPRESSOR P16INK4A; CHAIN: NULL;	TUMOR SUPPRESSOR P16INK4A; CHAIN: NULL;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA I; CHAIN: B; DNA; CHAIN: D, E;
SEQFOL D score		147.29						
PMF			1.00	 0.48	1.00	1.00	0.40	1.00
Verify score		=	0.86	0.27	0.80	0.65	0.16	0.61
Psi Blast		6.4e-41	6.4e-41	1.4e-21	8e-26	3.4e-25	4.8e-18	6.4e-37
END		163	163	151	154	162	121	164
STAR T AA		47	52	39	39	61	9	39
CHAI N ID								В
PDB ID		4rhn	4rhn	lase	IaSe	JaSe	la5e	lawc
SEQ NO.		1256	1256	1257	1257	1257	1257	1257

PDB annotation	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	COMPLEX (KINASE/ANTI- ONCOGENE) CDK6; P16INK4A, MTS1; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, MULTIPLE TUMOR SUPPRESSOR, 3 MTS1, COMPLEX (KINASE/ANTI- ONCOGENE) HEADER	COMPLEX (KINASE/ANTI- ONCOGENE) CDK6; P16INK4A, MTS1; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, MULTIPLE TUMOR SUPPRESSOR, 3 MTS1, COMPLEX (KINASE/ANTI- ONCOGENE) HEADER	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX
Coumpound	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; MULTIPLE TUMOR SUPPRESSOR; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; MULTIPLE TUMOR SUPPRESSOR; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;
SEQFOL D score					
PMF score	1.00	1.00	1.00	0.35	1.00
Verify score	0.40	0.48	0.62	0.22	0.82
Psi Blast	9.6e-40	1.3e-31	3.2e-26	8e-19	1.7e-32
END AA	154	157	154	121	164
STAR T AA	4	7	39	9	39
CHAI N ID	æ		, m	щ	В
PDB ID	lawc	1bd8	1bi7	16:7	1bfx
SEQ NO:	1257	1257	1257	1257	1257

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PDB annotation	(INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL,	ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18-	INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR,	CYCLIN- 2 DEPENDENT KINASE,	SIGNATING PROTEIN LET IV TIEN	HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN-	HELIX, ANKYRIN REPEAT	METAL BINDING PROTEIN ZINC-	BINDING MODULE, ANKYRIN	REPEATS, METAL BINDING	PROTEIN	METAL BINDING PROTEIN ZINC-	BINDING MODULE, ANKYRIN	KEPEAIS, METAL BINDING PROTEIN	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE	INHIBITOR, P18-INK4C(INK6),	ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE	INHIBITOR, P18-INK4C(INK6),	ANKYRIN REPEAT, 2 CDK 4/6 NHIBITOR
Coumpound		CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: 8.	í		CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A;		CVCI TAI DEBENIDENT VINASE	4 INHIBITOR B: CHAIN: A:	CYCLIN-DEPENDENT KINASE	4 INHIBITOR B; CHAIN: A;	PYK2-ASSOCIATED PROTEIN	BETA; CHAIN: A;			PYK2-ASSOCIATED PROTEIN	BETA; CHAIN: A;		CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;			CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;		
SEQFOL D score																										
PMF		1.00			0.88			1 00	3.0	0.95		0.80				0.99			1.00				1.00			•
Verify score		0.38			0.34			0.70	00	0.42		0.41				0.05			0.52				0.47			
Psi Blast		1.6e-30			8e-37			16076	1.00-20	3.2e-20		6.4e-15				1.1e-17			4.8e-36			·	8e-18			
END AA		157			159			164	<u> </u>	127	·	16				157			158				163			
STAR		7			9			30	6	9		2				7			9				73			
CHAI		В			٧			\ <	ζ.	A		A				٧			∀				4			
PDB ID		1blx			6nq1			1,40,	869	149s		1dcq				1dcq			1ihb				ij.			
SEQ 1D NO:		1257			1257			1267) (2)	1257		1257				1257			1257				1257			

PDB annotation	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION	REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (ANTI-	P53BP2; ANK YRIN REPEATS, SH3,	P53, TUMOR SUPPRESSOR,	MULTIGENE 2 FAMILY, NUCLEAR PROTEIN PHOSPHORY, A TION	DISEASE MUTATION. 3	POLYMORPHISM, COMPLEX (ANTI-	COMPLEX (ANTI-	ONCOGENE/ANKYRIN REPEATS)	P53. TUMOR SUPPRESSOR.	MULTIGENE 2 FAMILY, NUCLEAR	PROTEIN, PHOSPHORYLATION,	DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI-
Coumpound	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I VA DBA B AI DUA: CHAIN: E	F;	P53; CHAIN: A; 53BP2; CHAIN: P.	j.					P53; CHAIN: A; S3BP2; CHAIN:	B;				
SEQFOL D score		52.27								-									
PMF score	0.84		0.98	96.0	1.00	1.00		98.0						1.00					
Verify score	0.08		0.32	0.22	0.04	0.39		0.04						0.24					
Psi Blast	8e-38	3.2e-26	3.2e-26	6.4e-24	1.1e-23	1.6e-38		1.4e-19						1.6e-25					
END	162	152	156	106	164	162		95						154					
STAR T AA	4	35	40	5	74	4		12						39					
CHAI N ID	Q					ы		В						В					
PDB CI	likn	1myo	1myo	lmyo	lmyo	Infi		lycs						lycs					
SEQ EQ	1257	1257	1257	1257	1257	1257		1257						1257					

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PDB annotation	ONCOGENE/ANKYRIN REPEATS)	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3,	P.5., I UMUK SUPPKESSUK, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION,	DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)	LECTIN CL-QPDWG; 1AFB 7 C-TYPE	PROTEIN 1AFB 22	COLLAGEN BINDING PROTEIN IX-	BP; IX-BP; COAGULATION FACTOR	VENOM, HABU 2 SNAKE, C-TYPE	LECTIN SUPERFAMILY, COLLAGEN	DINDING FROI BIN	COLLAGEN BINDING PROTEIN IX-	BF; LX-BF; COAGOLATION FACTOR	VENOM. HABU 2 SNAKE, C-TYPE	LECTIN SUPERFAMILY, COLLAGEN BINDING PROTEIN	MEMBRANE PROTEIN C-TYPE	LECTIN-LIKE DOMAINS		MEMBRANE PROTEIN C-TYPE	EECTIN-LINE DOMAINS	
Coumpound		P53; CHAIN: A; 53BP2; CHAIN: B;			MANNOSE-BINDING PROTEIN-	5	COAGULATION FACTOR IX-	BINDING PROTEIN A; CHAIN:	A; COAGOLATION FACTOR IX- BINDING PROTEIN B; CHAIN:	B;	111 10000 1 11 10 100 1 11 100 100	COAGULATION FACTOR IX	BINDING PROTEIN A; CHAIN: A: COAGIII ATION FACTOR IX-	BINDING PROTEIN B. CHAIN:	B;	FLAVOCETIN-A: ALPHA	SUBUNIT; CHAIN: A;	FLAVOCETIN-A: BELA SUBUNIT: CHAIN: B	FLAVOCETIN-A: ALPHA	SUBUNIT; CHAIN: A; FLAVOCETIN-A: BETA	SUBUNIT; CHAIN: B
SEQFOL D score					52.08						;	61.48									
PMF score		1.00					0.11									0.89			0.01		
Verify score		0.44					0.42									0.20			0.03		
Psi Blast		1.6e-22		•	3.4e-20		8e-34				;	8e-34				6.4e-28			1.4e-30		
END		191		_	183		180				į	181				185			183		
STAR T AA		73			ы		31	.,		-		34				31			31	1	
CHAI N ID		g			_		Ą					٧				⋖			æ		
PDB ID		lycs			1afb		16j3				:	1bj3				1с3а			1c3a		
SEQ NO:		1257			1258		1258				3	1258				1258			1258		

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PDB annotation	SIGNALING PROTEIN HEPATIC LECTIN H1; C-TYPE LECTIN CRD	INTIMIN INT190; INTIMIN, ESCHERICHIA COLI, CELL ADHESION, OUTER MEMBRANE 2 PROTEIN, NMR SPECTROSCOPY	SUGAR BINDING PROTEIN C-TYPE LECTIN, MANNOSE RECEPTOR					CELL ADHESION	IMMUNOGLOBULIN-LIKE FOLD, C- TYPE LECTIN-LIKE FOLD	LECTIN TETRANECTIN,	PLASMINOGEN BINDING, KRINGLE	4, ALTHA-HELICAL & COILED COIL, C-TYPE LECTIN, CARBOHYDRATE RECOGNITION DOMAIN	C-TYPE LECTIN ALPHA-HELICAL	COLLED-COIL IHUP 12	COAGULATION FACTOR BINDING	RINDING C-TYPE LECTIN GLA-	DOMAIN 2 BINDING, C-TYPE CRD	MOTIF, LOOP EXCHANGED DIMER	COAGULATION FACTOR BINDING
Coumpound	ASIALOGLYCOPROTEIN RECEPTOR 1; CHAIN: A;	INTIMIN; CHAIN: I;	MACROPHAGE MANNOSE RECEPTOR; CHAIN: A, B;	CELL ADHESION PROTEIN E- SELECTIN (LECTIN AND EGF DOMAINS, RESIDUES 1 - 157)	IESL 3 (FORMERLY KNOWN AS ELAM-1) IESL 4	CELL ADHESION PROTEIN E- SELECTIN (LECTIN AND EGF DOMAINS RESIDIES 1-157)	IESL 3 (FORMERLY KNOWN AS ELAM-1) IESL 4	INTIMIN; CHAIN: I;		TETRANECTIN; CHAIN: NULL;			MANNOSE-BINDING PROTEIN;	1HUP 4 CHAIN: NULL; 1HUP 5	COAGULATION FACTORS	CHAIN: A B C D E F.			COAGULATION FACTORS
SEQFOL D score						60.26				19:89			50.48						58.55
PMF score	9.68	0.57	0.36	0.89				0.40							0.21				
Verify score	0.72	-0.69	0.41	0.45				-0.19							0.21				
Psi Blast	6.4e-28	0.0093	1.6e-29	4.8e-30		4.8e-30		0.0093		1.3e-23			6.4e-21		4.8e-32				4.8e-32
END AA	180	08	187	213		220		80		184			183		180				181
STAR T AA	31	52	29	4		45		52		12			8		31				34
CHAI N ID	∢	H	æ												∢				A
PDB ID	1dv8	leŚu	legg	lesl		lesi		1600		1 htr			Ihup		Iixx				lixx
SEQ NO.	1258	1258	1258	1258		1258		1258		1258			1258		1258	_			1258

PDB annotation	IXX-BP COAGULATION FACTOR BINDING, C-TYPE LECTIN, GLA- DOMAIN 2 BINDING, C-TYPE CRD MOTIF, LOOP EXCHANGED DIMER	COAGULATION FACTOR BINDING IXX-BP COAGULATION FACTOR BINDING, C-TYPE LECTIN, GLA-DOMAIN 2 BINDING, C-TYPE CRD MOTIF, LOOP EXCHANGED DIMER	COAGULATION FACTOR BINDING IX/X-BP COAGULATION FACTOR BINDING, C-TYPE LECTIN, GLADOMAIN 2 BINDING, C-TYPE CRD MOTIF, LOOP EXCHANGED DIMER	PANCREATIC STONE INHIBITOR, PANCREATIC STONE INHIBITOR, LECTIN	PANCREATIC STONE INHIBITOR, PANCREATIC STONE INHIBITOR, LECTIN	METAL BINDING PROTEIN PANCREATIC STONE PROTEIN, PSP; PANCREATIC STONE INHIBITOR, LITHOSTATHINE	METAL BINDING PROTEIN PANCREATIC STONE PROTEIN, PSP; PANCREATIC STONE INHIBITOR, LITHOSTATHINE		LECTIN TETRANECTIN, PLASMINOGEN BINDING, KRINGLE
Coumpound	DXX-BINDING PROTEIN; CHAIN: A, B, C, D, E, F;	COAGULATION FACTORS IX/X-BINDING PROTEIN; CHAIN: A, B, C, D, E, F;	COAGULATION FACTORS IX/X-BINDING PROTEIN; CHAIN: A, B, C, D, E, F;	LITHOSTATHINE; CHAIN: NULL	LITHOSTATHINE; CHAIN: NULL	LITHOSTATHINE; CHAIN: A;	LITHOSTATHINE; CHAIN: A;	LECTIN MANNOSE-BINDING PROTEIN A (CLOSTRIPAIN FRAGMENT) (CL-MBP-A) IRTM 3 IRTM 96	TETRANECTIN; CHAIN: NULL;
SEQFOL D score			53.06		71.84	72.35		50.72	59.80
PMF score		0.45		0.30	'		0.52		
Verify score		0.24		0.51			0.65		
Psi Blast		1.3e-29	1.36-29	1.6e-31	1.6e-31	1.6e-31	1.6e-31	5.1e-19	1.2e-24
END		183	183	182	183	183	182	183	184
STAR T AA		31	34	31	31	18	31	E	28
CHAI N ID		æ	B			Ą	٧	-	
PDB U		lixx	lixx	ılı.	ili	1qdd	19dd	1rtm	1tm3
SEQ No.		1258	1258	1258	1258	1258	1258	1258	1258

PDB annotation	4, C-TYPE LECTIN, 2 CARBOHYDRATE RECOGNITION DOMAIN	ANTIFREEZE PROTEIN RECOMBINANT SEA RAVEN PROTEIN, SOLUTION BACKBONE FOLD, C. 2 TYPE LECTIN, ANTIFREEZE PROTEIN	OXIDOREDUCTASE DAPDH; NADP, DEHYDROGENASE, D-AMINO ACID DEHYDROGENASE, LYSINE 2 BIOSYNTHESIS, ASYMMETRIC DIMER, OXIDOREDUCTASE			COMPLEX (PROTEASE INHIBITOR/PEPTIDE) PAI-1; SERINE PROTEASE INHIBITOR, PAI-1, CARBOHYDRATE, INHIBITOR 2 COMPLEX, PEPTIDE	SERPIN ACT; SERPIN, SERINE PROTEASE INHIBITOR,
Coumpound		SEA RAVEN TYPE II ANTIFREEZE PROTEIN; CHAIN: A;	DIAMINOPIMELJC ACID DEHYDROGENASE; CHAIN: A, B;	OXIDOREDUCTASE (NAD\$(A)-ALDEHYDE(D)) D-GLYCERALDEHYDE-3-PHOSPHATE DEHYDROGENASE (E.C.1.2.1.12) 3GPD 4	OXIDOREDÚCTASE (NAD\$(A)- ALDEHYDE(D)) D- GLYCERALDEHYDE-3- PHOSPHATE DEHYDROGENASE (E.C.1.2.1.12) 3GPD 4	PLASMINOGEN ACTIVATOR INHIBITOR TYPE 1; CHAIN: A; PENTAPEPTIDE; CHAIN: B, C	ANTICHYMOTRYPSIN; CHAIN: A, B;
SEQFOL D score				491.59		115.78	
PMF score		0.54	0.13		1.00		96.0
Verify score		-0.06	-0.51		0.93		0.25
Psi Blast		1.6e-27	4.8e-05	0	0	4.8e-91	0
END AA		179	33	336	336	463	430
STAR		29		2	8	82	88
CHAI		∢	∢	~	æ	∢	∢
PDB ID		2afp	Idap	3gpd	3gpd	1a7c	las4
SEQ NO.		1258	1259	1259	1259	1263	1263

PDB CHAI STAR END ID NID TAA AA	STAR T AA	END		Psi Blast	Verify score	PMF score	SEQFOL D score	Соитроипд	PDB annotation
007	000	+		_			20 101	ANTHOLIVAKOTE VEGEL: CHARL	ANTICHYMOTRYPSIN
Jas4 A 90 438 0	438	·	0				104.85	ANTICHYMOTRYPSIN; CHAIN: A, B;	SEKTIN ACT; SEKTIN, SEKINE PROTEASE INHIBITOR, ANTICHYMOTRYPSIN
lath B 101 464 1.3e-96	464		1.3e-96				102.92	HUMAN ANTITHROMBIN-III ANTITHROMBIN III 1ATH 3	
1ath B 85 464 1.3e-96 0	464 1.3e-96	1.3e-96		0	0.23	1.00		HUMAN ANTITHROMBIN-III ANTITHROMBIN III 1ATH 3	
1by7 A 86 463 0 0.	463 0	0		o	89.0	1.00		PLASMINOGEN ACTIVATOR INHIBITOR-2; CHAIN: A;	PROTEIN BINDING PAI-2; SERPIN, PROTEIN BINDING
1by7 A 86 463 0	463		0				20:101	PLASMINOGEN ACTIVATOR INHIBITOR-2; CHAIN: A;	PROTEIN BINDING PAI-2; SERPIN, PROTEIN BINDING
1d5s B 433 463 1.3e-09 -0	463 1.3e-09	1.3e-09		o P	-0.75	0.04		PI-ARG ANTITR YPSIN; CHAIN: A; PI-ARG ANTITR YPSIN; CHAIN: B;	HYDROLASE INHIBITOR SERPIN FOLD, RCL CLEAVAGE, A BETA SHEET POLYMERISATION
1db2 A 83 463 3.2e-94	463		3.2e-94				120.11	PLASMINOGEN ACTIVATOR INHIBITOR-1; CHAIN: A, B;	HYDROLASE INHIBITOR NATIVE SERPIN, HYDROLASE INHIBITOR
1ezx A 86 432 0 0.23	432 0	0		0.2		0.80		ALPHA-1-ANTITRYPSIN; CHAIN: A; ALPHA-1- ANTITO VDENI: CHAIN: B.	HYDROLASE/HYDROLASE INHIBITOR PROTEASE-INHIBITOR COMPLEY SEPRIN ALPHA 1
								TRYPSIN; CHAIN: B;	ANTITRYPSIN, 2 TRYPSIN
1hle A 85 426 3.2e-98 0.38	426 3.2e-98	3.2e-98		0.38		1.00		HYDROLASE INHIBITOR(SERINE PROTEINASE) HORSE	
								LEUKOCYTE ELASTASE INHIBITOR (HLEI) 1HLE 3	
Ihle A 85 432 3.2e-98	432		3.2e-98				84.90	HYDROLASE INHIBITOR(SERINE PROTEINA CE) HOD CE	
		***************************************						LEUKOCYTE ELASTASE INHIBITOR (HLEI) 1HLE 3	
10va A 80 463 0	463		0				126.84	SERPIN OVALBUMIN (EGG ALBUMIN) 10VA 3	
Iova A 87 463 0 0.	463 0	0		0	0.62	1.00		SERPIN OVALBUMIN (EGG	

		ĵOR,			IAL, 2				TOR,			!AL, 2	حرب				TOR.	PSIN,			LIAL	ET	MA,							1	
ıtion		SERINE PROTEASE INHIBITOR ALPHA-1-PROTEINASE INHIBITOR,	INASE;	SERINE PROTEASE INHIBITOR,	SERPIN, GLYCOPROTEIN, SIGNAL, 2 POI VMORPHISM EMPHYSEMA		ACUIE	SERINE PROTEASE INHIBITOR	ALPHA-1-PROTEINASE INHIBITOR,	INASE;	SERINE PROTEASE INHIBITOR	SERPIN, GLYCOPROTEIN, SIGNAL, 2	POLYMORPHISM, EMPHYSEMA,	ACUTE		SERINE PROTEASE INHIBITOR	ALPHA-1-PROTEINASE INHIBITOR,	ALPHA-1-PI; SERPIN, ANTITRYPSIN,		SERPIN AACT SERPIN, SERINE	PROTEINASE INHIBITOR, PARTIAL	LOOP 2 INSERTION, LOOP-SHEET	POLYMERIZATION, EMPHYSEMA,	DISEASE 3 MUTATION, ACUTE		JISEASE	SERINE PROTEASE INHIBITOR	SERINE PROTEASE INHIBITOR,		RIN,	RIN,
PDB annotation		TEASE IN	ALPHA-1-ANTIPROTEINASE;	EASE IN	COPROT	TATE TO THE	DISEASE MOTATION, ACUTE PHASE	TEASE IN	OTEINAS	ALPHA-1-ANTIPROTEINASE;	TEASE IN	COPROT	OSM, EM	DISEASE MUTATION, ACUTE		EASE IN	OTEINAS	SERPIN,	POLYMER, CLEAVED	I SERPIN	INHIBIT	RTION, L	ATION, E	UTATIO	EIN,	CONFORMATIONAL DISEASE	LEASE IN	EASE IN	TEASE	SERPIN SERPIN, HEPARIN,	SERPIN SERPIN, HEPARIN,
a	:	NE PRO	IA-1-AN	NE PRO		1 1 1 1 1 1	ASE MU SE	NE PRO	AA-1-PR(IA-1-AN	NE PRO	'IN, GLY	YMORPE	ASE MU	SE	NE PRO	HA-1-PR	AA-1-PI;	YMER, C	PIN AAC	TEINASE	P 2 INSE	YMERIZ.	ASE 3 M	PHASE PROTEIN	FORMA?	NE PRO	NE PRO	SERPIN, PROTEASE	SERPIN SERP	IN SER
		SERI	ALP	SER	SER	3 2	PHASE	SER	ALP	ALP	SER	SER	POL	DISE	PI-IASE	SER	ALP	ALP	POL	SER	PRO	200	POL	DISE	PHA	<u> </u>	SER	SER	SER	SER	SERI
pu		PSIN;						'PSIN;								PSIN;					ANTICHYMOTRYPSIN; CHAIN:						NULL;			ANTITHROMBIN; CHAIN: L, I;	HAIN: L, I;
Coumpound	10VA 3	NTITRY						INTITRY								NTITE	Ď;				AOTRYP						CHAIN:			MBIN; C	MBIN; C
	ALBUMIN) 10VA 3	ALPHA-1-ANTITRYPSIN CHAIN: A;						ALPHA-1-ANTITRYPSIN;	CHAIN: A;							ALPHA-1-ANTITRYPSIN	CHAIN: A, B;			ALPHA-1-	ANTICHYA	Ą;					SERPIN K; CHAIN: NULL;			ANTITHRO	ANTITHROMBIN; CHAIN: L, I;
SEQFOL D score								146.76																			102.05			139.88	
PMF		1.00														0.12				1.00											1.00
Verify score		0.49														-0.75				0.44											0.48
Psi Blast		0						0								4.8e-09				0							3.2e-85			0	0
END AA		463						466								463				464							463			466	464
STAR		98						88								433				88							08			47	49
CHAI N ID		¥						∀	_							m				V.	_									-	_
PDB ID		1qlp						Ialp								1qmb				lqmn							1sek			2ant	2ant
SEQ ID NO:		1263						1263								1263				1263							1263			1263	1263

				- 1				_									,													
PDB annotation	INHIBITOR	SERPIN SERPIN, HEPARIN, INHIBITOR	SERPIN SERPIN, HEPARIN, INHIBITOR		COMPLEX (ANTIGEN/PEPTIDE) B35; MAIOR HISTOCOMPATIBILITY	ANTIGEN, MHC, HLA, HLA-B3501,	HIV, 2 NEF, COMPLEX	(ANTIGEN/PEPTIDE)	COMPLEX (ANTIGEN/PEPTIDE) B35; MAJOR HISTOCOMPATIBILITY	ANTIGEN, MHC, HLA, HLA-B3501,	HIV, 2 NEF, COMPLEX	(ANTIGEN/PEPTIDE)	COMPLEX (ANTIGEN/PEPTIDE) B35;	MAJOR HISTOCOMPATIBILITY	ANTIGEN, MHC, HLA, HLA-B3501,	HIV, 2 NEF, COMPLEX	(ANTIGEN/PEPTIDE)	HISTOCOMPATIBILITY COMPLEX	B8; B2M; PEPTIDE HLA B8, HIV,	MHC CLASS I,	HISTOCOMPATIBILITY COMPLEX		HISTOCOMPATIBILITY COMPLEX	B8; B2M; PEPTIDE HLA B8, HIV,	MHC CLASS I,	HISTOCOMPATIBILITY COMPLEX		HISTOCOMPATIBILITY COMPLEX	B8; B2M; PEPTIDE HLA B8, HIV,	MHC CLASS I,
Coumpound		ANTITHROMBIN; CHAIN: L, I;	ANTITHROMBIN; CHAIN: L, I;		B*3501; CHAIN: A, B; PEPTIDE VPI RPMTY: CHAIN: C:				B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;				B*3501; CHAIN: A, B; PEPTIDE	VPLRPMTY; CHAIN: C;				B*0801; CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	HIV-1 GAG PEPTIDE	(GGKKKYKL - INDEX	PEPTIDE); CHAIN: C;	B*0801; CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	HIV-1 GAG PEPTIDE	(GGKKKYKL - INDEX	PEPTIDE); CHAIN: C;	B*0801; CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	HIV-1 GAG PEPTIDE
SEQFOL D score		125.53							237.20														239.77							
PMF score			1.00		1.00	•							1.00					1.00										1.00		
Verify score			0.63		0.93								1.19					0.97										0.98		
Psi Blast		0	0		6.4e-92		-		1.2e-93				1.2e-93					3.2e-92					3.2e-92					8.5e-92	-	
END		466	464		218				219				210					218					219					210		
STAR		59	81		25				25				79					25					25					26		_
CHAI N ID		1	1		¥				¥				٧					Ą					Ą					Ą		
PDB ID		2ant	2ant		lain				lain				laln					lagd					lagd					lagd		
SEQ ID NO:		1263	1263		1264				1264				1264					1264					1264					1264		

Coumpound PDB annotation	- INDEX HISTOCOMPATIBILITY COMPLEX AIN: C;	HLA-A*0201; CHAIN: A, D; IMMUNE SYSTEM BETA-2 MICROGLOBULIN; IMMUNOGLOBULIN FOLD CHAIN: B, E; HTLV-1 CHAMERIC TAX PEPTIDE;	HIA-CHO, 2, 1, 1, 1, 1, 2, 2, 2, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	HLA-CW3 (HEAVY CHAIN); CHAIN: A; BETA-2- MICROGLOBULIN; CHAIN: B; PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATURAL KILLER CELL RECEPTOR KIRZDL2; CHAIN: D, E;	HISTOCOMPATIBILITY ANTIGEN MURINE CLASS I MAJOR HISTOCOMPATIBILITY COMPLEX CONSISTING 1HOC 3 OF H-2D==B=, B2- MICROGLOBULIN, AND A 9- RESIDUE PEPTIDE 1HOC 4	ATIBILITY MAN CLASS I ATIBILITY
	(GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	HLA-A*0201; CHAIN: A, D; BETA-2 MICROGLOBULIN; CHAIN: B, E; HTLV-1 OCTAMERIC TAX PEPTIDE	HLA-CW3 (HEAVY CHAIN); CHAIN: 4, BETA-2- MICROGLOBULN; CHAIN: PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATUR KILLER CELL RECEPTOR KR2DL2; CHAIN: D, E;	HLA-CW3 (HEAVY CHAIN) CHAIN: A; BETA-2- MICROGLOBULIN; CHAIN PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATU KILLER CELL RECEPTOR KIRZDL2; CHAIN: D, E;		HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1145 A 21 JA 1
PMF SEQFOL score		0	0	0	206.63	0
Verify Pl		1.03	1.13 1.00	1.29		0.91 1.00
Psi Blast		1.6e-88	9.6e-91	8.5e-93	1.6e-84	3.2e-91 0
END		218	218	210	218	218
STAR T AA		25	25	26	25	25
CHAI N ID		4	<	∢	∀	∢
aga ID		1duz	1efx	lefx	1hoc	Thsa
SEQ ID	Š	1264	1264	1264	1264	1264

PDB annotation				MAJOR HISTOCOMPATIBILITY COMPLEX MHC NONCLASSICAL CHAIN, MHC-E, HLA-E, MHC CLASS HLA-E, HLA E, MAJOR HISTOCOMPATIBILITY COMPLEX, MHC, HLA, 2 BETA 2 MICROGLOBULIN, PEPTIDE, LEADER PEPTIDE, 3 NON- CLASSICAL MHC, CLASS IB MHC	IMMUNE SYSTEM IMMUNOGLOBULIN (IG)-LIKE DOMAIN, ALPHA HELLX, BETA SHEET, 2 IMMUNE SYSTEM	
Coumpound	ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN A W68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN A W68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	HLA CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-E; CHAIN: A, C; BETA-2-MICROGLOBULIN; CHAIN: B, D; PEPTIDE (VMAPRTVLL); CHAIN: P, Q;	HISTOCOMPATIBILITY LEUKOCYTE ANTIGEN (HLA)- CW4 CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HLA-CW4 SPECIFIC PEPTIDE; CHAIN: C;	HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I
SEQFOL D score			226.78	209.47		257.75
PMF score		1.00			1.00	
Verify		1.15			1.17	
Psi Blast		3.2e-89	3.2e-89	4.8e-88	6.4e-89	9.6e-81
END AA		218	219	219	218	199
STAR T AA		25	25		26	25
CHAI N ID		4	∢	Ą	¥	Ā
PDB ID		lhsb	1hsb	1mhe	Iqqd	Itmc
SEQ ID NO:		1264	1264	1264	1264	1264

PDB annotation		COMPLEX (ANTIGEN/PEPTIDE) B35; MAJOR HISTOCOMPATIBLITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGEN/PEPTIDE)	COMPLEX (ANTIGEN/PEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGEN/PEPTIDE)	HISTOCOMPATIBILITY COMPLEX B8, B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	HISTOCOMPATIBILITY COMPLEX BR; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	IMMUNE SYSTEM MHC, HLA, CLASS I, KIR, NK CELL RECEPTOR, IMMUNOGLOBULIN 2 FOLD, RECEPTOR/MHC COMPLEX	
Coumpound	HISTOCOMPATIBILITY ANTIGEN HLA-AW68 1TMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) 1TMC 4	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	HLA-CW3 (HEAVY CHAIN); CHAIN: A; BETA-2- MICROGLOBULIN; CHAIN: B; PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATURAL KILLER CELL RECEPTOR KIRZDL2; CHAIN; D, E;	HISTOCOMPATIBILITY
SEQFOL D score			222.84		242.14		
PMF score		1.00		1.00		0.10	1.00
Verify score		0.82		0.93		0.96	1.04
Psi Blast		0	0	0	0	4.8e-100	1.68-100
END AA		212	213	212	213	212	212
STAR T AA		25	25	25	25	25	25
CHAI N ID		A	ď	4	ď	∢	A
PDB ID		laln	laln	lagd	lagd	lefx	Ihsa
SEQ NO B		1265	1265	1265	1265	1265	1265

PDB annotation			IMMUNE SYSTEM IMMUNOGLOBULIN (IG)-LIKE DOMAIN, ALPHA HELIX, BETA SHEET, 2 IMMUNE SYSTEM			COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY
Coumpound	ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY 'ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY LEUKOCYTE ANTIGEN (HLA)- CW4 CHAIN: A; BETA-2 MICROGLOBULN; CHAIN: B; HLA-CW4 SPECIFIC PEPTIDE; CHAIN: C;	HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;
SEQFOL D score		212.48			245.23	
PMF score			1.00	1.00		1.00
Verify score			0.83	1.00		0.88
Psi Blast		1.6e-100	1.3e-98	3.2e-93	3.2e-93	4.8e-97
END		213	212	199	199	210
STAR T AA		25	56	25	25	22
CHAI		¥	٧	Ą	Ą	A
PDB ID		lhsa	Iqqd	Itmc	ltmc	lain
SEQ NO:		1265	1265	1265	1265	1266

PDB annotation	ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGEN/PEPTIDE)	COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGEN/PEPTIDE)	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	HISTOCOMPATIBILITY COMPLEX BS: B2M; PEPTIDE HLA BS, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	IMMUNOGLOBULIN FOLD	IMMUNE SYSTEM MHC, HLA, CLASS I, KIR, NK CELL RECEPTOR, IMMUNOGLOBULIN 2 FOLD, RECEPTORMHC COMPLEX	
Coumpound		B*3501; CHAIN: A, B; PEPTIDE VPI.RPMTY; CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE): CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE): CHAIN: C;	HLA-A*0201; CHAIN: A, D; BETA-2 MICROGLOBULIN; CHAIN: B, E; HTLV-1 OCTAMERIC TAX PEPTIDE; CHAIN: C, F;	HLA-CW3 (HEAVY CHAIN); CHAIN: A; BETA-2- MICROGLOBULIN; CHAIN: B; PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATURAL KILLER CELL RECEPTOR KIRZDI.2; CHAIN: D, E;	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA-
SEQFOL D score		202.13		212.14			
PMF			1.00		1.00	1.00	1.00
Verify score			0.92		0.88	1.08	0.89
Psi Blast		4.8e-97	1.1e-97	1.1e-97	4.8e-95	3.2e-96	3.2e-96
END		210	210	210	208	210	210
STAR		22	22	22	22	22	22
CHAI		∢	4	¥.	∢	∢	∢
PDB ID		laln	lagd	lagd	Iduz	lefx	lhsa
SEQ ID		1266	1266	1266	1266	1266	1266

PDB annotation																				IMMUNE SYSTEM	IMMUNOGLOBULIN (IG)-LIKE	DOMAIN, ALPHA HELIX, BETA	SHEET, 2 IMMUNE SYSTEM											
Coumpound		B(ASTERUSK)2705\$ 1HSA 4	HISTOCOMPATIBILITY	ANTIGEN HUMAN CLASS I	HISTOCOMPATIBILITY	ANTIGEN 1HSA 3 /HLA-	B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY	ANTIGEN CLASS I	HISTOCOMPATIBILITY	ANTIGEN AW68.1	(LEUCOCYTE 1HSB 3	ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY	ANTIGEN CLASS I	HISTOCOMPATIBILITY	ANTIGEN AW68.1	(LEUCOCYTE 1HSB 3	ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY	LEUKOCYTE ANTIGEN (HLA)-	CW4 CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	HLA-CW4 SPECIFIC PEPTIDE;	CHAIN: C;	HISTOCOMPATIBILITY	ANTIGEN TRUNCATED	HUMAN CLASS I	HISTOCOMPATIBILITY	ANTIGEN HLA-AW68 1TMC 3	COMPLEXED WITH A	DECAMERIC PEPTIDE	(EVAPPEYHRK) ITMC 4	HISTOCOMPATIBILITY ANTIGEN TRUNCATED
SEQFOL	D score		195.27											189.34				-									_							228.77
PMF	score							1.00					,							1.00						1.0								
Verify	score							0.87												0.89				ı		0.98								
Psi Blast			3.2e-96					4.8e-96				•		4.8e-96						3.2e-94						4.8e-90								4.8e-90
END	AA		210					208						210						210						197								197
STAR	T AA		22					22						22						23						77								22
CHAI			¥					¥						A				_		Ą						٧	_							A
PDB	3		Ihsa					1hsb						1fasb						1qqd						1tmc								1tmc
SEQ	a ö		1266					1266						1266						1266						1266								1266

PDB annotation		COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	IMMUNE SYSTEM IMMUNOGLOBULIN FOLD	IMMUNE SYSTEM MHC, HLA, CLASS I, KIR, NK CELL RECEPTOR,
Coumpound	HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	HLA-A*0201; CHAIN: A, D; BETA-2 MICROGLOBULIN; CHAIN: B, E; HTLV-1 OCTAMERIC TAX PEPTIDE; CHAIN: C, F;	HLA-CW3 (HEAVY CHAIN); CHAIN: A; BETA-2-
SEQFOL D score			206.29		193.54		
PMF score		1.00		1.00		1.00	1.00
Verify		1.01		0.95	,	0.96	0.91
Psi Blast		6.4e-100	6.4e-100	1.6e-100	1.6e-100	3.2e-97	1.6e-98
END		214	214	214	214	214	214
STAR T AA		22	25	25	22	22	25
CBAI N ID		∢	A	V .	4	A	A
PDB UD		laln	laln	lagd	lagd	Iduz	1efx
SEQ NO:		1267	1267	1267	1267	1267	1267

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PDB annotation	IMMUNOGLOBULIN 2 FOLD, RECEPTOR/MHC COMPLEX					IMMUNE SYSTEM IMMUNOGLOBULIN (IG)-LIKE DOMAIN, ALPHA HELIX, BETA SHEET, 2 IMMUNE SYSTEM	
Coumpound	MICROGLOBULN; CHAIN: B; PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATURAL KILLER CELL RECEPTOR KIR2DL2; CHAIN: D, E;	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705S 1HSA 4	HISTOCOMPATIBILITY ANTIGEN CLASS 1 HISTOCOMPATIBILITY ANTIGEN A W68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN A W68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY LEUKOCYTE ANTIGEN (HLA)- CW4 CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HLA-CW4 SPECIFIC PEPTIDE; CHAIN: C;	HISTOCOMPATIBILITY
SEQFOL D score			198.64		190.28		
PMF score		1.00		1.00		1:00	1.00
Verify score		1.02		0.98		0.95	16.0
Psi Blast		1.6e-99	1.6e-99	1.1e-98	1.1e-98	4.8e-97	6.4e-91
END		214	214	214	214	214	200
STAR T AA		25	25	25	25	26	25
CHAI N ID		4	∢	∢	4	∢	Ą
PDB ID		Ihsa	1hsa	1hsb	Ihsb	1qqd	1tmc
SEQ El SO Si		1267	1267	1267	1267	1267	1267

PDB annotation	·			COMPLEX (ANTIGEN/PEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV 2 NFF COMPLEX	(ANTIGEN/PEPTIDE)	COMPLEX (ANTIGEN/PEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501,	HIV, 2 NEF, COMPLEX (ANTIGEN/PEPTIDE)	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV,	HISTOCOMPATIBILITY COMPLEX	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I,
Coumpound	ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	-	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;		B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;		B*0801; CHAN: A; BETA-2 MICROGLOBULIN; CHAIN: B;	(GGKKKYKL - INDEX PEPTIDE): CHAIN: C:	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE
SEQFOL D score		227.42				381.69				382.18
PMF score				00.1				1.00		
Verify score				0.83	1			0.79		
Psi Blast		6.4e-91		0		0		0		0
END AA		200		301		301		301		301
STAR T AA		25	_	25		25		25		25
CHAI N ID		A		¥		A	·	¥.		Y
PDB CI		Itmc		laln		laln		lagd		Jagd
SEQ ID NO:		1267		1268		1268		1268		1268

	×	n)		JR,			
PDB annotation	HISTOCOMPATIBILITY COMPLEX	IMMUNE SYSTEM FC IGG PHAGE DISPLAY PEPTIDE	IMMUNGLOBULIN FOLD	IMMUNE SYSTEM MHC, HLA, CLASS I, KIR, NK CELL RECEPTOR, IMMUNOGLOBULIN 2 FOLD, RECEPTOR/MHC COMPLEX			
Coumpound	(GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	IMMUNOGLOBULIN LAMBDA HEAVY CHAIN; CHAIN: A, B; ENGINEERED PEPTIDE; CHAIN: E, F;	HLA-A*0201; CHAIN: A, D; BETA-2 MICROGLOBULIN; CHAIN: B, E; HTLV-1 OCTAMERIC TAX PEPTIDE; CHAIN: C, F;	HLA-CW3 (HEAVY CHAIN); CHAIN: A; BETA-2- MICROGLOBULIN; CHAIN: B; PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATURAL KILLER CELL RECEPTOR KIRZDL2; CHAIN: D, E;	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN A W68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4
SEQFOL D score						381.68	
PMF		0.00	1.00	1.00	1.00		1.00
Verify score		-0.28	0.83	0.83	0.80		0.82
Psi Blast		0.00034	0	0	0	0	0
END		314	300	303	301	301	295
STAR T AA		224	25	25	25	25	25
CHAI N ID		¥	V	⋖	V	¥	∢
PDB ID		1dn2	Iduz	1efx	lhsa	Ihsa	1hsb
SEQ NO ID		1268	1268	1268	1268	1268	1268

PDB annotation		IMMUNOGLOBULIN INTACT IMMUNOGLOBULIN V REGION C REGION, IMMUNOGLOBULIN			IMMUNE SYSTEM IMMUNOGLOBULIN (IG)-LIKE DOMAIN, ALPHA HELIX, BETA SHEET, 2 IMMUNE SYSTEM	COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC; HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	COMPLEX (ANTIGEN/PEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGEN/PEPTIDE)
Coumpound	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN AW68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	IGG2A INTACT ANTIBODY - MAB231; CHAIN: A, B, C, D	IMMUNOGLOBULIN IMMUNOGLOBULIN GI (IGG1) (MCG) WITH A HINGE DELETION 1MCO 3	IMMUNOGLOBULIN IMMUNOGLOBULIN GI (IGG1) (MCG) WITH A HINGE DELETION 1MCO 3	HISTOCOMPATIBILITY LEUKOCYTE ANTIGEN (HLA)- CW4 CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HLA-CW4 SPECIFIC PEPTIDE; CHAIN: C;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;
SEQFOL D score	416.11	1					279.39
PMF score		0.71	0.23	0.48	1.00	1.00	
Verify score		0.26	0.09	0.30	0.63	0.88	
Psi Blast	0	1.6e-05	1.7e-05	6.8e-06	0	0	0
END AA	295	308	310	314	299	285	288
STAR T AA	25	224	681	220	26	25	25
CHAI	<	В	Н	H	∢	<	<
PDB ID	1hsb	ligt	Imco	Ітсо	lqqd	lain	laln
SEQ NO.	1268	1268	1268	1268	1268	1269	1269

PDB annotation	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	IMMUNOGLOBULIN FOLD	IMMUNE SYSTEM MHC, HLA, CLASS I, KIR, NK CELL RECEPTOR, IMMUNOGLOBULIN 2 FOLD, RECEPTOR/MHC COMPLEX			
Conmpound	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	HLA-A*0201; CHAIN: A, D; BETA-2 MICROGLOBULIN; CHAIN: B, E; HTLV-1 OCTAMERIC TAX PEPTIDE; CHAIN: C, F;	HLA-CW3 (HEAVY CHAIN); CHAIN: A; BETA-2. MICROGLOBULIN; CHAIN: B; PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATURAL KILLER CELL RECEPTOR KIR2DL2; CHAIN: D, E;	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN CLASS I
SEQFOL D score		278.31				284.65	
PMF score	1.00		1.00	1.00	00.1		1.00
Verify score	0.87		0.93	0.94	0.93		0.83
Psi Blast	0	0	0	0	0	0	0
END	285	288	285	285	285	288	285
STAR T AA	25	22	23	25	25	25	25
CHAI N ID	¥	¥	A	∀	¥	¥	٧
PDB TD	lagd	lagd	1duz	lefx	1hsa	1hsa	1hsb
SEQ ID NO:	1269	1269	1269	1269	1269	1269	1269

PDB annotation			MAJOR HISTOCOMPATIBILITY COMPLEX MHC NONCLASSICAL CHAIN, MHC-E, HLA-E, MHC CLASS HLA-E, HLA E, MAJOR HISTOCOMPATIBILITY COMPLEX, MHC, HLA, 2 BETA 2 MICROGLOBULIN, PEPTIDE, LEADER PEPTIDE, 3 NON- CLASSICAL MHC, CLASS IB MHC	MAJOR HISTOCOMPATIBILITY COMPLEX MHC NONCLASSICAL CHAIN, MHC-E, HLA-E, MHC CLASS HLA-E, HLA E, MAJOR HISTOCOMPATIBILITY COMPLEX, MHC, HLA, 2 BETA 2 MICROGLOBULIN, PEPTIDE, LEADER PEPTIDE, 3 NON- CLASSICAL MHC, CLASS IB MHC	IMMUNE SYSTEM IMMUNOGLOBULIN (IG)-LIKE DOMAIN, ALPHA HELIX, BETA SHEET, 2 IMMUNE SYSTEM
Coumpound	HISTOCOMPATIBILITY ANTIGEN AW68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN A W68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	HLA CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-E; CHAIN: A, C; BETA-2-MICROGLOBULIN; CHAIN: B, D; PEPTIDE (VMAPRTVLL); CHAIN: P, Q;	HLA CLASS I HISTOCOMPATBILITY ANTIGEN HLA-E; CHAIN: A, C; BETA-2-MICROGLOBULIN; CHAIN: B, D; PEPTIDE (VMAPRTVLL); CHAIN: P, Q;	HISTOCOMPATIBILITY LEUKOCYTE ANTIGEN (HLA)- CW4 CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HLA-CW4 SPECIFIC PEPTIDE; CHAIN: C;
SEQFOL D score		302.23		253.44	
PMF score			1.00		1.00
Verify score			0.70		0.86
Psi Blast		0	0	0	0
END AA		288	285	288	285
STAR T AA		25	26	26	26
CELAI N ID		∢	A	A	¥
PDB ID		1hsb	Imhe	1mhe	Iqqd
SEQ NO 112		1269	1269	1269	1269

PDB annotation			COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV,
Coumpound	HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 1TMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) 1TMC 4	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B;
SEQFOL D score		257.46		239.16		
PMF score	1.00		1.00		1.00	00.1
Verify	0.97		0.95		1.03	1.03
Psl Blast	88-88	86~88	1.4e-94	5.1e-96	5.le-96	3.2e-95
END	200	200	218	219	210	218
STAR T AA	25	25	25	25	26	25
CHAI	∢	Ą	∢	V	∢	Ą
PDB ID	Itmc	1fmc	laln	laln	lain	lagd
SEQ NO ID	1269	1269	1271	1271	1271	1271

SEQ PDB CHAI STAR END Psi Blast ID ID NID TAA AA NO:	CHAI STAR END NID TAA AA	END		Psi Blast	1	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
									HIV-I GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	MHC CLASS I, HISTOCOMPATIBILITY COMPLEX
1271 lagd A 25 219 3.2e-95	25 219	219		3.2e-95				243.91	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I,
1271 Iduz A 25 218 3.2e-91 0.93	25 218 3.2e-91	. 218 3.2e-91	3.2e-91		0.93		1.00		PEPTIDE); CHAIN: C; HLA-A*0201; CHAIN: A, D;	IMMUNE SYSTEM
									BEIA-2 MICKOGLOBOLIN; CHAIN: B, E; HTLV-1 OCTAMERIC TAX PEPTIDE;	IMMUNOGEOBOLIN FOLD
				7		T			CHAIN: C, F;	
1271 lefx A 25 218 1.6e-93 0.95	25 218 1.6e-93	218 1.6e-93	1.6e-93		0.95		9.		HLA-CW3 (HEAVY CHAIN);	IMMUNE SYSTEM MHC, HLA,
			-						MICROGLOBULIN; CHAIN: B;	IMMUNOGLOBULIN 2 FOLD,
									PEPTIDE FROM IMPORTIN	RECEPTOR/MHC COMPLEX
									ALPHA-2; CHAIN: C; NATUKAL KILLER CELL RECEPTOR	
									KIR2DL2; CHAIN: D, E;	
1271 lefx A 26 210 le-95 1.16	26 210 1e-95	210 le-95	1e-95		1.16	_	1.00		HLA-CW3 (HEAVY CHAIN);	IMMUNE SYSTEM MHC, HLA,
									CHAIN: A; BETA-2-	CLASS I, KIR, NK CELL RECEPTOR,
									MICROGLOBULIN; CHAIN: B; PEPTIDE FROM IMPORTIN	IMMUNOGLOBULIN 2 FOLD, RECEPTOR/MHC COMPLEX
									ALPHA-2; CHAIN: C; NATURAL	
									KILLER CELL RECEPTOR	
						٦			KIR2DL2; CHAIN: D, E;	
1271 lhsa A 25 218 4.8e-94 0.99	25 218 4.8e-94	218 4.8e-94	4.8e-94	-	0.99	i	1.00		HISTOCOMPATIBILITY	
									ANTIGEN HUMAN CLASS I	
									HISTOCOMPATIBILITY	
									ANTIGEN IHSA 3 /HLA-	
			7			Ī			B(ASTERISK)2705\$ 1HSA 4	
1271 1hsa A 25 219 4.8e-94	25 219	219		4.8e-94				235.85	HISTOCOMPATIBILITY	
									ANTIGEN HUMAN CLASS I	

PDB annotation															MAJOR HISTOCOMPATIBILITY	COMPLEX MHC NONCLASSICAL	CHAIN, MHC-E, HLA-E, MHC CLASS	HLA-E, HLA E, MAJOR	HISTOCOMPATIBILITY COMPLEX,	MHC, HLA, 2 BETA 2	MICROGLOBULIN, PEPTIDE,	LEADER PEPTIDE, 3 NON-	CLASSICAL MHC, CLASS IB MHC	MAJOR HISTOCOMPATIBILITY	COMPLEX MHC NONCLASSICAL	CHAIN, MHC-E, HLA-E, MHC CLASS	HLA-E, HLA E, MAJOR	HISTOCOMPATIBILITY COMPLEX,	MHC, HLA, 2 BETA 2	MICROGLOBULIN, PEPTIDE,	LEADER PEPTIDE, 3 NON-	CLASSICAL MHC, CLASS IB MHC	IMMUNE SYSTEM
Coumpound		HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY	ANTIGEN CLASS I	HISTOCOMPATIBILITY	ANTIGEN AW68.1	(LEUCOCYTE 1HSB 3	ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY	ANTIGEN CLASS I	HISTOCOMPATIBILITY	ANTIGEN A W68.1	(LEUCOCYTE 1HSB 3	ANTIGEN) 1HSB 4	HLA CLASS I	HISTOCOMPATIBILITY	ANTIGEN HLA-E; CHAIN: A, C;	BETA-2-MICROGLOBULIN;	CHAIN: B, D; PEPTIDE	(VMAPRTVLL); CHAIN: P, Q;				HLA CLASS I	HISTOCOMPATIBILITY	ANTIGEN HLA-E; CHAIN: A, C;	BETA-2-MICROGLOBULIN;	CHAIN: B, D; PEPTIDE	(VMAPRTVLL); CHAIN: P, Q;				HISTOCOMPATIBILITY
SEQFOL	D score								238.52															218.16	•								
PMF	score		1.00												1.00																		1.00
Verify	score		1111												0.94																		0.95
Psi Blast			4.8e-92						4.8e-92						1.6e-92									1.6e-92									1.6e-92
END	AA		218						219						218									219									218
STAR	T AA		- 25						25						26									56									26
CHAI	e Z		¥						∢						Ą									4									A
PDB	<u> </u>		1hsb						1hsb						Imhe									1mhe									199d
SEQ	e ë		1271						1271	_	_				1271									1271									1271

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PDB annotation	IMMUNOGLOBULIN (IG)-LIKE DOMAIN, ALPHA HELIX, BETA SHEET, 2 IMMUNE SYSTEM			COMPLEX (ANTIGEN/PEPTIDE) B35, MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGEN/PEPTIDE)	COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX
Coumpound	LEUKOCYTE ANTIGEN (HLA)- CW4 CHAIN: A; BETA-2 MICROGLOBULN; CHAIN: B; HLA-CW4 SPECIFIC PEPTIDE; CHAIN: C;	HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4		B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE): CHAIN: C:
SEQFOL D score		267.94			150.68		152.02
PMF score				1.00		3.00	
Verify score				0.92		0.79	
Psi Blast		1.4e-83		8e-91	8e-91	3.2e-91	3.26-91
END		199		213	213	213	213
STAR T AA		25		25	25	25	25
CHAI		A		¥	¥	< -	٧
PDB CI		Itmc		laln	lain	lagd	lagd
SEQ		1271		1272	1272	1272	1272

PDB annotation	IMMUNE SYSTEM IMMUNOGLOBULIN FOLD	IMMUNE SYSTEM MHC, HLA, CLASS I, KIR, NK CELL RECEPTOR, IMMUNOGLOBULIN 2 FOLD, RECEPTOR/MHC COMPLEX				
Coumpound	HLA-A*0201; CHAIN: A, D; BETA-2 MICROGLOBULIN; CHAIN: B, E; HTLV-1 OCTAMERIC TAX PEPTIDE; CHAIN: C, F;	HLA-CW3 (HEAVY CHAIN); CHAIN: A; BETA-2- MICROGLOBULIN; CHAIN: B; PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATURAL KILLER CELL RECEPTOR KIRZDIL2; CHAIN: D, E;	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)2705\$ 1HSA 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN AW68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN AW68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4
SEQFOL D score				151.46		178.43
PMF score	1.00	1.00	1.00		1.00	
Verify score	0.75	0.89	0.92		0.87	
Psi Blast	6.4e-90	6.4e-91	1.6e-90	1.6e-90	3.2e-91	3.2e-91
END	213	213	213	213	213	213
STAR T AA	25	22	25	25	25	25
CEAI N ID	⋖	¥	Ą	4	V	¥
PDB ID	Iduz	lefx	Ihsa	lhsa	qsų)	Ihsb
SEQ No.	1272	1272	1272	1272	1272	1272

SEQ B G S	PDB ID	CHAI N ID	STAR T AA	END	Psi Blast	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
1272	Imhe	4	26	213	4.8e-87	0.92	1.00		HLA CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-E; CHAIN; A, C; BETA-2-MICROGLOBULIN; CHAIN; B, D; PEPTIDE (VMAPRTVLL); CHAIN; P, Q;	MAJOR HISTOCOMPATIBILITY COMPLEX MHC NONCLASSICAL CHAIN, MHC-E, HLA-E, MHC CLASS HLA-E, HLA E, MAJOR HISTOCOMPATIBILITY COMPLEX, MHC, HLA, 2 BETA 2 MICROGLOBULIN, PEPTIDE, LEADER PEPTIDE, 3 NON- CLASSICAL MHC, CLASS IB MHC
1272	Imhe	A	26	213	4.8e-87			144.34	HLA CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-E; CHAIN: A, C; BETA-2-MICROGLOBULIN; CHAIN: B, D; PEPTIDE (VMAPRTVLL); CHAIN: P, Q;	MAJOR HISTOCOMPATIBILITY COMPLEX MHC NONCLASSICAL CHAIN, MHC-E, HLA-E, MHC CLASS HLA-E, HLA E, MAJOR HISTOCOMPATIBILITY COMPLEX, MHC, HLA, 2 BETA 2 MICROGLOBULIN, PEPTIDE, LEADER PEPTIDE, 3 NON- CLASSICAL MHC, CLASS IB MHC
1272	1qqd	А	26	213	8e-89	0.67	1.00		HISTOCOMPATIBILITY LEUKOCYTE ANTIGEN (HLA)- CW4 CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HLA-CW4 SPECIFIC PEPTIDE; CHAIN: C;	IMMUNE SYSTEM IMMUNOGLOBULIN (IG)-LIKE DOMAIN, ALPHA HELIX, BETA SHEET, 2 IMMUNE SYSTEM
1272	1tmc	Ą	25	201	9.6e-87	0.83	1.00		HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 1TMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	
1272	1tmc	А	25	205	9.6e-87			215.19	HISTOCOMPATIBILITY ANTIGEN TRUNCATED	

PDB annotation		COMPLEX (ANTIGEN/PEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGEN/PEPTIDE)	COMPLEX (ANTIGENPEPTIDE) B35; MAJOR HISTOCOMPATIBILITY ANTIGEN, MHC, HLA, HLA-B3501, HIV, 2 NEF, COMPLEX (ANTIGENPEPTIDE)	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	HISTOCOMPATIBILITY COMPLEX B8; B2M; PEPTIDE HLA B8, HIV, MHC CLASS I, HISTOCOMPATIBILITY COMPLEX	IMMUNGGLOBULIN FOLD	IMMUNE SYSTEM MHC, HLA, CLASS I, KIR, NK CELL RECEPTOR,
Coumpound	HUMÁN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C;	B*3501; CHAIN: A, B; PEPTIDE VPLRPMTY; CHAIN: C,	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	B*0801; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HIV-1 GAG PEPTIDE (GGKKKYKL - INDEX PEPTIDE); CHAIN: C;	HLA-A*0201; CHAIN: A, D; BETA-2 MICROGLOBULN; CHAIN: B, E; HTLV-1 OCTAMERIC TAX PEPTIDE; CHAIN: C, F;	HLA-CW3 (HEAVY CHAIN); CHAIN: A; BETA-2-
SEQFOL D score			221.84		223.96		
PMF		1.00		1.00		1.00	1.90
Verify score		0.98		1.14		1.27	1.17
Psi Blast		6.4e-97	6.4e-97	3.2e-97	3.2e-97	1.1e-95	4.8e-97
END		205	219	205	219	205	205
STAR		25	25	25	25	25	25
CHAI N ID		A	4	A	¥	A	4
PDB ID		laln	lain	Jagd	lagd	1duz	Tef
SEQ EQ		1273	1273	1273	1273	1273	1273

PDB annotation	IMMUNOGLOBULIN 2 FOLD, RECEPTOR/MHC COMPLEX			•		IMMUNE SYSTEM IMMUNOGLOBULIN (IG)-LIKE DOMAIN, ALPHA HELLX, BETA SHEET, 2 IMMUNE SYSTEM	
Coumpound	MICROGLOBULIN; CHAIN: B; PEPTIDE FROM IMPORTIN ALPHA-2; CHAIN: C; NATURAL KILLER CELL RECEPTOR KIR2DL2; CHAIN: D, E;	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)27055 1HSA 4	HISTOCOMPATIBILITY ANTIGEN HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN 1HSA 3 /HLA- B(ASTERISK)27055 1HSA 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN AW68.1 (LEUCOCYTE 1HSB 3 ANTIGEN) 1HSB 4	HISTOCOMPATIBILITY ANTIGEN CLASS I HISTOCOMPATIBILITY ANTIGEN A W68.1 (LEUCOCYTE I HSB 3 ANTIGEN) I HSB 4	HISTOCOMPATIBILITY LEUKOCYTE ANTIGEN (HLA)- CW4 CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; HLA-CW4 SPECIFIC PEPTIDE; CHAIN: C;	HISTOCOMPATIBILITY
SEQFOL D score			222.04		245.70		
PMF score		00:1		1.00		1.00	1.00
Verify score		1.12		1.03		1.07	1.25
Psi Blast		1.6e-96	1.6e-96	1.6e-97	1.6e-97	1.1e-95	1.6e-93
END		205	219	205	218	205	661
STAR T AA		25	25	25	25	26	25
CEAI N ID		∢	ď	∢	<	∢	A
108 10		ihsa	lhsa	Ihsb	lhsb	Iqqd	1tmc
S E S		1273	1273	1273	1273	1273	1273

PDB annotation			GENE REGULATION POZ DOMAIN; PROTEIN-PROTEIN INTERACTION DOMAIN, TRANSCRPTIONAL 2 REPRESSOR, ZINC-FINGER PROTEIN, X-RA Y CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION	GENE REGULATION POZ DOMAIN; PROTEIN-PROTEIN INTERACTION DOMAIN, TRANSCRIPTIONAL 2 REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION	
Coumpound	ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	HISTOCOMPATIBILITY ANTIGEN TRUNCATED HUMAN CLASS I HISTOCOMPATIBILITY ANTIGEN HLA-AW68 ITMC 3 COMPLEXED WITH A DECAMERIC PEPTIDE (EVAPPEYHRK) ITMC 4	PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;	PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE
SEQFOL D score		273.81			
PMF score			1.00	0.99	0.17
Verify			0.30	0.41	0.05
Psi Blast		1.6e-93	1.6e-22	3.4e-28	1.1e-11
END		199	126	128	458
STAR T AA		25	-	<i>ا</i> د	291
CHAI N ID		¥	4	∢	
PDB CI		1tmc	Ibuo	Ibuo	1gof
SEQ ID		1273	1274	1274	1274

PDB annotation			STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COLLED-COILS, STRUCTURAL PROTEIN	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	TRANSCRIPTION REGULATION SIGMA70; RNA POLYMERASE SIGMA FACTOR, TRANSCRIPTION REGULATION		RIBOSOME RIBOSOME- INACTIVATING PROTEIN TYPE II	RIBOSOME RIBOSOME- INACTIVATING PROTEIN TYPE II	TRANSFERASE GLYCOSYLTRANSFERASE
Coumpound	(E.C.1.1.3.9) (PH 4.5) 1GOF 3	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3	ALPHA SPECTRIN; CHAIN: A, B, C;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	RNA POLYMERASE PRIMARY SIGMA FACTOR; CHAIN: NULL;	COMPLEX (GLYCOSIDASE/CARBOHYDRA TE) ABRIN-A COMPLEXED WITH TWO SUGAR CHAINS 1ABR 3	RIBOSOME-INACTIVATING PROTEIN TYPE II; CHAIN: A; RIBOSOME-INACTIVATING PROTEIN TYPE II; CHAIN: B	RIBOSOME-INACTIVATING PROTEIN TYPE II; CHAIN: A; RIBOSOME-INACTIVATING PROTEIN TYPE II; CHAIN: B	SPORE COAT POLYSACCHARIDE BIOSYNTHESIS PROTEIN
SEQFOL D score			65.74	59.43	76.16				
PMF score		0.13				0.40	0.21	0.13	0.28
Verify score		0.27				0.45	0.16	-0.25	60:0
Psi Blast		1.6e-08	6.8e-09	3.4e-12	5.1e-05	1.4e-09	1.2e-15	0.00011	6.4e-22
END AA		495	385	415	416	552	552	543	345
STAR T AA		383	170	. 180	130	413	441	450	123
CHAI N ID			V	¥		В	В	æ	¥
PDB TD		1gof	lcun	Iquu	lsig	labr	Ice7	lce7	lqgq
SEQ NO:		1274	1275	1275	1275	1276	1276	1276	1276

PDB annotation		HYDROLASE XYLAN DEGRADATION			•		IMMUNOGLOBULIN	IMMUNOGLOBULIN	CATALYTIC ANTIBODY CATALYTIC ANTIBODY, ESTERASE	CATALYTIC ANTIBODY	CATALYTIC ANTIBODY, ESTERASE	COMPLEX (IMMUNOGLOBULIN/VIRAL	PEPTIDE) ANTIBODY 8F5;	IMMUNOGLOBULIN, ANTIBODY,	RHINOVIRUS, NEUTRALIZATION, 2	CONTINUOUS EPITOPE, COMPLEX	(IMMUNOGLOBULIN/VIKAL PEPTIDE)	IMMUNOGLOBULIN	IMMUNOGLOBULIN, ANTIBODY,	CATALYTIC ANTIBODY, DIELS	ALDER, 2 GERMLINE	IMMUNOGLOBULIN	IMMUNOGLOBULIN, FAB, ANTIBODY, ANTI-E-SELECTIN
Coumpound	CHAIN: A;	ENDO-1,4-BETA-XYLANASE; CHAIN: A, B;	GLYCOSIDASE RICIN (E.C.3.2.2.2) 2AAI 3	TRANSFERASE (PHOSPHOTRANSFERASE) ADENYLATE KINASE	ISOENZYME-3 (GTP: AMP	PHOSPHOTRANSFERASE) 2AK3 3 (E.C.2.7.4.10) 2AK3 4	2E8 (IGG1=KAPPA=)	ANTIBODY; CHAIN: L, H, M, P;	29G11 FAB; CHAIN: L, H;	29G11 FAB; CHAIN: L, H;		IGG2A; CHAIN: L, H; HUMAN RHINOVIRUS CAPSID PROTEIN	VP2; CHAIN: P;					IMMUNOGLOBULIN, DIELS	ALDER CATAL YTIC	ANTTBODY; CHAIN: L, H, A, B;		MONOCLONAL ANTI-E-	SELECTIN 7A9 ANTIBODY; CHAIN: L. H;
SEQFOL D score									61.67			85.09										61.06	
PMF score		99.0	0.03	86.0			0.21			0.27								0.17					
Verify score		-0.02	-0.31	-0.87			0.01			-0.31								-0.11					•
Psi Blast		1.6e-16	1.3e-07	1.3e-16			1.3e-38		6.4e-37	6.4e-37		1.3e-36						9.6e-37				3.2e-35	
END		543	543	38			253		254	253		256						252				256	
STAR T AA		441	441				59		20	59		50						51				48	
CHAI N ID		⋖	В	¥			Н		Ħ	H		н						L				H	
PDB TD		lxyf	2aai	2ak3			12e8		1a0q -	1a0q		la3r						la4i	•			la5f	
SEQ ID NO:		1276	1276	1279			1280		1280	1280		1280						1280				1280	

PDB annotation	COMPLEX (IMMUNOGLOBULIN/AUTOANTIGE N) COMPLEX (IMMUNOGLOBULIN/AUTOANTIGE N), RHEUMATOID FACTOR 2 AUTO- ANTIBODY COMPLEX	COMPLEX (VIRAL CAPSID/IMMUNOGLOBULIN) HIV-1 CA, HIV CA, HIV P24, P24; FAB, FAB LIGHT CHAIN, FAB HEAVY CHAIN COMPLEX (VIRAL CAPSID/IMMUNOGLOBULIN), HIV, CAPSID PROTEIN, 2 P24	IMMUNOGLOBULIN IMMUNOGLOBULIN, ANTIBODY FAB; CATALYST, ALDOLASE REACTION	IMMUNE SYSTEM IMMUNOGLOBULIN; IMMUNOGLOBULIN; INMUNOGLOBULIN ANTIBODY ENGINEERING, HUMANIZED AND CHIMERIC ANTIBODY, FAB, 2 X- RAY STRUCTURE, THREE- DIMENSIONAL STRYCTURE, GAMMA- 3 INTERFERON, IMMUNE SYSTEM	ANTIBODY ENGINEERING ANTIBODY ENGINEERING, HUMANIZED AND CHIMERIC ANTIBODIES, 2 FAB, X-RAY STRUCTURES, GAMMA- INTERFERON	IMMUNOGLOBULIN IMMUNOGLOBULIN, KAPPA LIGHT-
Coumpound	IGG4 REA; CHAIN: A; RF-AN IGMLAMBDA; CHAIN: H, L;	HUMÁN IMMUNODEFICIENCY VIRUS TYPE I CAPSID CHAIN: A, B; ANTIBODY FAB25.3 FRAGMENT; CHAIN: H, K, L, M;	IMMUNOGLOBULIN IGGZA; CHAIN: L, H;	ANTIBODY (LIGHT CHAIN); CHAIN: L; ANTIBODY (HEAVY CHAIN); CHAIN: H;	ANTIBODY; CHAIN: L, H;	IMMUNOGLOBULIN; CHAIN: A, B;
SEQFOL D score			56.82			
PMF	0.00	0.58		-0.07	0:00	0.13
Verify score	-0.04	0.08		0.04	0.00	-0.12
Psi Blast	1.1e-37	4.8e-37	4.8e-33	86-39	1.4e-37	4.8e-37
END	255	253	256	258	258	252
STAR T AA	20	25	51	51	51	51
CHAI N ID	1	H	н	L	7	A
PDB ID	ladq	lafv	laxt	162w	1b4j	1b6d
SEQ NO:	1280	1280	1280	1280	1280	1280

PDB annotation	CHAIN DIMER HEADER	COMPLEX (ANTIBODY/ANTIGEN) FAB-12; VEGF; COMPLEX (ANTIBODY/ANTIGEN).	ANGIOGENIC FACTOR	IMMUNE SYSTEM IMMINOGI OBIII IN IMMINE	SYSTEM		IMMUNE SYSTEM	IMMUNOGLOBULIN							IMMUNE SYSTEM ANTIBODY (FAB	FRAGMENT), IMMUNE SYSTEM		ANTIBODY THERAPEUTIC,	ANTIBODY, CD52			IMMUNE SYSTEM ANTI-PRION FAB	5F4; ANTI-FRION FAB 5F4 ANTI- PRION ANTIRODY FAB 3F4			
Coumpound		FAB FRAGMENT; CHAIN: L, H, J, K; VASCULAR ENDOTHELIAL GROWTH	FACTOR; CHAIN: V, W;	MONOCLONAL ANTIBODY MRY-16 (1) 1GHT CHAIN:	CHAIN: A, C; MONOCLONAL	ANTIBODY MRK-16 (HEAVY CHAIN): CHAIN: R D:	IMMUNOGLOBULIN OPG2 FAB,	CONSTANT DOMAIN; CHAIN: L: IMMUNOGLOBULIN OPG2	FAB, VARIABLE DOMAIN;	CHAIN: H;	COMPLEX	(ANTIBODY/ANTIGEN) HYHEL-	5 FAB COMPLEXED WITH	BOBWHITE QUAIL LYSOZYME 1BOL 3 1BOL 95	ANTIBODY R24 (LIGHT	CHAIN); CHAIN: A; ANTIBODY	R24 (HEAVY CHAIN); CHAIN: B;	CAMPATH-1H:LIGHT CHAIN;	CHAIN: L; CAMPATH-	IH:HEAVY CHAIN; CHAIN: H;	PEPTIDE ANTIGEN; CHAIN: P;	FAB ANTIBODY LIGHT CHAIN;	CHAIN: L; FAB ANI IBOUY	COMPLEX	(ANTIBODY/ANTIGEN) FAB	INAUMINI OF THE
SEQFOL D score				57.09			57.73			İ	59.53				57.49									56.80		
PMF score		60:0-																-0.03				0.60				
Verify score		60.0																0.11				-0.12				
Psi Blast		8e-38		4.8e-35			1.6e-34				3.2e-36				1.6e-26			9.6e-37				8e-39		1.6e-36		
END		252		252			258				255				250			252				255		255		
STAR T AA		51		47			51				50				51			51				59		48		
CHAI N ID		T		V			H				Ŧ				В		-	1				Ħ		H	. —	
PDB ID		161		1bln			1bm3				IbqI				1bz7			1561				1679		1fbi		
SEQ No:		1280		1280			1280				1280				1280			1280				1280		1280		

PDB annotation		IMMUNOGLOBULIN			CATALYTIC ANTIBODY CATALYTIC ANTIBODY 6D9 CATALYTIC ANTIBODY, ESTER HYDROLYSIS, ESTEROLYTIC, FAB, 2 IMMUNOGLOBULIN	COMPLEX (IMMUNOGLOBULIN IGG1/IGG2A)		t _e
Coumpound	MONOCLONAL ANTIBODY F9.13.7 (IGG1) IFB1 3 COMPLEXED WITH	4-20 (1G*62A=KAPPA=) FAB FRAGMENT; IFLR 5 CHAIN: L, H: 1FLR 6	IMMUNOGLOBULIN FAB FRAGMENT OF HUMANIZED ANTIBODY 4D5, VERSION 4 IFVD 3	IMMUNOGLOBULIN FAB FRAGMENT OF HUMANIZED ANTIBODY 4D5, VERSION 4 IFVD 3	IMMUNOGLOBULIN 6D9; CHAIN: L, H;	IDIOTYPIC FAB 730.1.4 (IGG1) OF VIRUS 11A1 5 CHAIN: 1, H; 11A1 7 ANTI-IDIOTYPIC FAB 409.5.3 (IGG2A); 11A1 9 CHAIN: M, 1 11A1 10	COMPLEX (ANTIBODY/BINDING PROTEIN) IGGI FAB FRAGMENT COMPLEXED WITH PROTEIN G (DOMAIN III) IIGC 5 PROTEIN G, STREPTOCOCCUS IIGC 15	IMMUNOGLOBULIN IGGI FAB' FRAGMENT (B1312) 11GF 3
SEQFOL D score		56.39		57.20	57.33	60.65	57.26	58.26
PMF score			-0.12					
Verify score			0.11					
Psi Blast		3.2e-33	1.4e-37	6.4e-32	1.3e-34	4.8e-33	1.6e-32	8e-35
END		256	258	258	255	254	258	258
STAR T AA		51	51	51	47	84	51	47
CHAI		H	4	Ф	1	н	H	7
PDB ID		111	1fvd	1fvd	lhyx	liai	ligo	ligf
SEQ	NO:	1280	1280	1280	1280	1280	1280	1280

PDB annotation	IMMUNOGLOBULIN INTACT IMMUNOGLOBULIN, V REGION, C REGION, HINGE REGION	CATALYTIC ANTIBODY SULFIDE OXIDATION, MONOOXYGENASE, OXYGENATION, FAB, 2 IMMUNOGLOBULIN, CATALYTIC ANTIBODY		MUSCLE PROTEIN CONNECTIN, NEXTM5; CELL ADHESION, GLYCOPROTEIN,	TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD,	ALTERNATIVE SPLICING, SIGNAL, 3 MUSCLE PROTEIN	IMMUNOGLOBULIN, IMMUNOGLOBULIN,	COMPLEX (ANTIBODY/PEPTIDE	EPITOPE) ANTIBODY, PEPTIDE ANTIGEN, ANTITUMOR ANTIBODY,	2 COMPLEX (ANTIBODY/PEPTIDE EPITOPE)	COMPLEX (ANTIBODY/PEPTIDE EPITOPE) ANTIBODY, PEPTIDE	ANTIGEN, ANTITUMOR ANTIBODY,	2 COMPLEX (ANTIBODY/PEPTIDE EPITOPE)	COMPLEX (ANTIBODY/PEPTIDE EPITOPE) ANTIBODY, PEPTIDE ANTIGEN, ANTITUMOR ANTIBODY,
Coumpound	IGGI INTACT ANTIBODY MAB61.1.3; CHAIN: A, B, C, D	28B4 FAB; CHAIN: L, H;	IMMUNOGLOBULIN FAB D44.1 (1GG1,KAPPA) (BALB/C MOUSE, MONOCLONAL ANTIBODY) 1MLB 5	TITIN; CHAIN: NULL;			NIG9 (IGGI=LAMBDA=); CHAIN: L, H;	SM3 ANTBODY; CHAIN: L, H;	PEPTIDE EPITOPE; CHAIN: P;		SM3 ANTIBODY; CHAIN: L, H; PEPTIDE EPITOPE; CHAIN: P;			SM3 ANTIBODY; CHAIN: L, H; PEPTIDE EPITOPE; CHAIN: P;
SEQFOL D score		57.31	56.48					58.83						99.99
PMF score	0.37			0.35			0.22		•		0.41			
Verify	0.02			0.08			-0.09				-0.09]
Psi Blast	1.6e-36	6,4e-34	8e-36	0.0015			6.4e-37	1.6e-36			1.6e-36			3.2e-30
END	253	255	258	254			253	256			253			252
STAR T AA	59	21	48	178			51	51			89			20
CHAI N ID	В	H	æ				H	H			Н			1
808 U	ligy	lkei	1mfb	lnct			lngp	1sm3			1sm3			1sm3
SEQ ID	1280	1280	1280	1280			1280	1280			1280			1280

PDB annotation	2 COMPLEX (ANTIBODY/PEPTIDE EPITOPE)						COMPLEX (ANTBODY/ELECTRON	TRANSPORT) FAB ES; CYT C, ANTIGEN; IMMUNOGLOBULIN,	IGGI KAPPA, FAB FRAGMENT,	HORSE 2 CYTOCHROME C,	TRANSPORT)	TRANSFERASE TRK RECEPTOR,	RECEPTOR TYROSINE KINASE, 3D-	DOMAIN SWAPPING, 2 TRANSFERASE	CATALYTIC ANTIBODY	CATALYTIC ANTIBODY, FAB, RING CLOSURE REACTION	CATALYTIC ANTIBODY	CATALYTIC ANTIBODY, FAB, RING				
	2 COMPL EPITOPE)						COME	ANTIC	1661	HORS	TRAN	TRAN	RECE	DOM/	CATA	CATA	CATA	CATA				
Coumpound		IMMUNOGLOBULIN IGGI MONOCLONAL FAB FRAGMENT (TE33) COMPLEX	WITH CHOLERA ITET 3 TOXIN PEPTIDE 3 (CTP3) ITET 4	MUSCLE PROTEIN TITIN	MODULE MS (CONNECTIN) 1TNM 3 (NMR, MINIMIZED A VIED A CE STRIFT INE) 1TNM	4 1TNM 58	E8 ANTIBODY; CHAIN: L, H;	CYTOCHROME C; CHAIN: F;				NT-3 GROWTH FACTOR	RECEPTOR TRKC; CHAIN: A;		IGG 5C8; CHAIN: L, H;		IGG 5C8; CHAIN: L, H;		IMMINOGLOBULIN IGG2B	(KAPPA) FAB FRAGMENT COMPLEXED WITH ANTIGEN	2CGR 3 N-(P-CYANOPHENYL)-N-(DIPHENYLEMETHYL)	
SEQFOL D score		57.32				•									57.06				57.12			
PMF				0.05			0.70					0.01					0.53					
Verify score				-0.05			0.55					-0.18					0.11					
Psi Blast		6.4e-36		0.0051			3.2e-37					0.0051			1.1e-37		1.1e-37		1.6e-31			
END		256		254			253					254			254		253		254			
STAR T AA		48		178			59					164			48		59		51	<u>. </u>		
CHAI N ID		工					Н	_				A			H		Н		H	1		
PDB ID		ltet		Itnm			lwej					lwwc			25c8		25c8		2ся	b		
SEQ U		1280		1280			1280					1280			1280		1280		1280			

PDB annotation			COMPLEX (RT/DNA/FAB) HV-1 RT; FAB 28; AIDS, HIV-1, RT, POLYMERASE		TRANSFERASE TRANSFERASE, CREATINE KINASE	TRANSFERASE BB-CK, BRAIN-TYPE CREATINE KINASE; BRAIN-TYPE CREATINE KINASE, CANCER, CELLULAR ENERGY 2 METABOLISM, GUANIDINO KINASE, NEURODEGENERATIVE DISORDERS	TRANSFERASE (CREATINE KINASE) UMTCK, MIA-CK; MITOCHONDRIAL CREATINE KINASE, CANCER, CELLULAR ENERGY 2 METABOLISM, GUANIDINO KINASE, MITOCHONDRIAL PERMEABILITY 3 TRANSITION, OCTAMER STABILITY	TRANSFERASE CREATINE KINASE,
Coumpound	GUANIDINEACETIC ACID 2CGR 4	IMMUNOGLOBULIN FAB FRAGMENT OF A HUMANIZED VERSION OF THE ANTI-CD18 2FGW 3 ANTIBODY 'H52' (HUH52-OZ FAB) 2FGW 4	HIV-1 REVERSE TRANSCRIPTASE; CHAIN: A, B; MONOCLONAL ANTIBODY 28; CHAIN: C, D; DNA; CHAIN: E, F;	IMMUNOGLOBULIN IMMUNOGLOBULIN FAB' NEW (LAMBDA LIGHT CHAIN) 7FAB 3	CREATINE KINASE; CHAIN: A, B, C, D;	CREATINE KINASE, B CHAIN; CHAIN: A, B, C, D;	CREATINE KINASE, UBIQUITOUS MITOCHONDRIAL; CHAIN: A, B, C, D, E, F, G, H;	CREATINE KINASE; CHAIN: A;
SEQFOL D score			56.78	57.01				
PMF score		80:0-			0.27	0:30	0.33	0.19
Verify score		0.00	1		-0.83	-0.83	-0.83	-0.83
Psi Blast	!	1.6e-38	4.8e-33	3.2e-31	3.2e-19	4.86-19	6.46-19	1.4e-19
END AA		258	258	255	46	46	46	46
STAR T AA		51	47	49	-	-	-	1
CHAI N ID		I	o	Н	V	¥	∢	A
PDB ID		2fgw	2hmi	7fab	lcrk	1qh4	1qk1	2crk
SEQ No:		1280	1280	1280	1284	1284	1284	1284

PDB annotation	TRANSFERASE		CHAPERONE HSP40; CHAPERONE, HEAT SHOCK, PROTEIN FOLDING, DNAK	CHAPERONE HSP40; CHAPERONE, HEAT SHOCK, PROTEIN FOLDING, DNAK	MOLECULAR CHAPERONE HDI-1; MOLECULAR CHAPERONE	MOLECULAR CHAPERONE HDJ-1; MOLECULAR CHAPERONE	MOLECULAR CHAPERONE HDJ-1; MOLECULAR CHAPERONE	PHOSPHOTRANSFERASE RHOGAP DOMAIN; PHOSPHOTRANSFERASE,	TPASE ACTIVATING PROTEIN, GAP,	KINASE, SH3 DOMAIN, SH2	DOMAIN, 3 SIGNAL	DIJOSETIONE ANGEER ASE BLIOGAR	DOMAIN; PHOSPHOTRANSFERASE,	TPASE ACTIVATING PROTEIN, GAP,	CDC42, 2 PHOSPHOINOSITIDE 3-	KINASE, SH3 DOMAIN, SH2	DOMAIN, 3 SIGNAL	G-PROTEIN CDC42 GTPASE-	ACTIVATING PROTEIN; G-PROTEIN,	GAP, SIGNAL-TRANSDUCTION	COMPLEX(GTPASE ACTIVATN/PROTO-ONCOGENE)
Coumpound			DNAJ; CHAIN: NULL;	DNAJ; CHAIN: NULL;	HUMAN HSP40; CHAIN: NULL;	HUMAN HSP40; CHAIN: NULL;	HUMAN HSP40; CHAIN: NULL;	PHOSPHATIDYLINOSITOL 3- KINASE; CHAIN: A, B;				PUDEBLIATION NOCITOR 3	KINASE; CHAIN: A, B;					RHOGAP: CHAIN: NULT:			P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN
SEQFOL D score				68.92		83.03		93.22				04.16	2 K					109.76			114.46
PMF score			00'1		1.00		1.00														
Verify			68.0		0.77		1.26														
Psi Blast			1.1e-27	1.16-27	3.4e-30	3.4e-30	1.6e-27	6.4e-08				00.00	6		•			4.8e-17			1.1e-17
END			69	82	77	08	69	300				21.4	t					288			302
STAR T AA			5	io.	10	5	7	112				113	7					66			105
CHAI N ID		_						∢ _				ď	1		_	_					4
PDB ID			1bq0	1bq0	1hdj	1hdj	îbdī	Ірьм		_		1mpm	a cod t					1rep	i 		1tx4
SEQ SO B			1287	1287	1287	1287	1287	1292				1202	7(7)					1292			1292

PDB annotation	GTPASE-ACTIVATING PROTEIN RHOGAP; COMPLEX (GTPASE ACTIVATION/PROTO-ONCOGENE), GTPASE, 2 TRANSITION STATE, GAP	COMPLEX (METALLOPROTEINASE/RECEPTOR) CDMTI-MMP; TIMP-2 MATRIX METALLOPROTEINASE, TISSUE INHIBITOR OF 2 METALLOPROTEINASES, PROTEINASE COMPLEX, PROGELATINASE A 3 ACTIVATOR, CR.YSTAL STRUCTURE, COMPLEX 4 (METALLOPROTEINASE/RECEPTOR)		METALLOPROTEINASE MATRIX METALLOPROTEINASE-3; MATRIX METALLOPROTEINASE, MMP-3, NON-PEPTIDE INHIBITOR	HYDROLASE MMP-2,72KD TYPE IV COLLAGENASE; HYDROLASE (METALLOPROTEASE), FULL- LENGTH, METALLOPROTEINASE, 2 GELATINASE A	HYDROLASE COL-2; BETA SHEET, ALPHA HELIX, HYDROLASE	METALLOPROTEASE
Coumpound	RHOA; CHAIN: B;	MEMBRANE-TYPE MATRIX METALLOPROTEINASE; CHAIN: M; METALLOPROTEINASE INHIBITOR; CHAIN: T;	HYDROLASE (METALLOPROTEASE) COLLAGENASE (E.C.3.4.24.7) (CATALYTIC DOMAIN) CRYSTAL FORM I 1CGE 3	STROMELYSIN-1; CHAIN: A;	GELATINASE A; CHAIN: A;	HUMAN MATRIX METALLOPROTEINASE 2; CHAIN: A;	FIBROBLAST (INTERSTITIAL)
SEQFOL D score		103.34	120.96	132.96	647.13	90.80	151.00
PMF score		,					
Verify score							
Psi Blast		9.6e-54	8e-60	4.8e-63	0	9.6e-14	3.2e-70
END AA		281	254	272	669	333	449
STAR		112	110	107	25	274	107
CHAI		×		V	¥	∢	
PDB LD		1bqq	lege	1ciz	1ck7	Icxw	1fbl
SEQ ID NO:		1293	1293	1293	1293	1293	1293

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PDB annotation		HYDROLASE (METALLOPROTEASE) MMP-2, 72KD TYPE IV COLLAGENASE; HYDROLASE,	HEMOPEXIN DOMAIN, HYDROLASE, METALLOPROTEASE	•	METALLOPROTEASE MMP-9, PUMP- 1, MATRIN; 1MMQ 7	METALLOPROTEASE MMP-13; C- TERMINAL HEMOPEXIN-LIKE DOMAIN OF MATRIX-	HYDROLASE MATRIX METALLOPROTEINASE-2; INHIBITOR, MATRIXIN, MATRIX METALLOPROTEINASE-2 (MMP-2), 2 GELATINASE A, METZINCIN,	HYDROLASE HYDROLASE MATRIX METALLOPROTEINASE-3, PROTEOGLYCANASE; HYDROLASE, METALLOPROTEASE, FIBROBLAST, COI 1 AGEN DEGRADATION	MATRIX METALLOPROTEASE MMP-13; MATRIX METALLOPROTEASE	HYDROLASE MMP-2,72KD TYPE IV COLLAGENASE; HYDROLASE (METALLOPROTEASE), FULL-
Coumpound	COLLAGENASE (MMP·1); 1FBL 4 CHAIN: NULL; 1FBL 5	GELATINASE A; CHAIN: NULL;		METALLOPROTEASE FIBROBLAST COLLAGENASE (E.C.3.4.24.7) 1HFC 3	MATRILYSIN; IMMQ 5 CHAIN: NULL; IMMQ 6	COLLAGENASE-3; CHAIN: NULL;	GELATINASE A; CHAIN: A;	STROMELYSIN-1; CHAIN: NULL;	MMP-13; CHAIN: A, B;	GELATINASE A; CHAIN: A;
SEQFOL D score		99.59		117.07	119.28	84.70	144.06	187.06	138.28	419.38
PMF score										
Verify										
Psi Blast		9.6e-50		8e-60	8e-56	4.8e-63	1.6e-57	1.6e-82	1.6e-59	0
END AA		669		265	279	669	272	272	267	432
STAR T AA		474		115	107	477	112	44	107	25
CHAI		<u> </u> 					⋖	i i	¥	A
PDB ID		lgen		1hfc	Imm 9	1pex	1qib	lslm	830c	1ck7
SEQ ID NO:		1293		1293	1293	1293	1293	1293	1293	1294

PDB annotation	LENGTH, METALLOPROTEINASE, 2 GELATINASE A	HYDROLASE COL-2; BETA SHEET, S; ALPHA HELIX, HYDROLASE	VG UBIQUITIN CONJUGATION UBC7; UBIQUITIN CONJUGATION, LIGASE, YEAST	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	HAIN: CELL ADHESION PROTEIN RGD, EXTRACELLULAR MATRIX IFNF 18	HAIN: COMPLEX (IMMUNOGLOBULIN/RECEPTOR) IMMUNOGLOBULIN FOLD, TRANSMEMBRANE, GLYCOPROTEIN, RECEPTOR, 2 SIGNAL, COMPLEX (IMMUNOGLOBULIN/RECEPTOR)	COMPLEX (SIGNAL TRANSDUCTION/REGULATOR) GI- ALPHA-1; REGULATOR OF G- PROTEIN SIGNALLING 4; GI-ALPHA- 1, HYDROLASE, SIGNAL TRANSDUCTION, RGS4, 2 COMPLEX (SIGNAL TRANSDUCTION/REGULATOR), GTP-BINDING, 3 GTPASE ACTIVATING PROTEIN	
Coumpound	,	HUMAN MATRIX METALLOPROTEINASE 2; CHAIN: A;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	HEMOLIN; CHAIN: A, B;	FIBRONECTIN; 1FNF 6 CHAIN: NULL; 1FNF 7	INTERLEUKIN- I BETA; CHAIN: A; TYPE 1 INTERLEUKIN- 1 RECEPTOR; CHAIN: B;	GUANINE NUCLEOTIDE. BINDING PROTEIN G(I); CHAIN: A, D; RGS4; CHAIN: E, H;	CITANINE NITOT FOTTIDE
SEQFOL D score		90.47	80.92	176.45	104.50	104.57	146.45	122 76
PMF score								
Verify								
Psi Blast		3.2e-21	3.2e-44	8e-44	8e-18	3.2e-18	4.8e-48	6 40-43
END		333	562	1834	2042	1645	122	169
STAR T AA		274	400	1462	1660	1370	45	2
CHAI		Α .		∢		æ	ம்	Ή
FDB CI		lcxw	2ucz	1bih	1fnf	litb	Tagr	1201
SEQ NO:		1294	1297	1298	1298	1298	1301	1301

PDB annotation	TRANSDUCTION/REGULATOR) GI- ALPHA-1; REGULATOR OF G- PROTEIN SIGNALLING 4; GI-ALPHA- 1, HYDROLASE, SIGNAL TRANSDUCTION, RGS4, 2 COMPLEX (SIGNAL TRANSDUCTION/REGULATOR), GTP-BINDING, 3 GTPASE ACTIVATING PROTEIN	SIGNALING PROTEIN REGULATION GALPHA INTERACTING PROTEIN; GAIP, RGS, REGULATOR OF G PROTEIN, SIGNALING PROTEIN 2 REGULATION	OXIDOREDUCTASE METHYLENETHF DEHYDROGENASE / METHENYLTHF THF, BIFUNCTIONAL, DEHYDROGENASE, CYCLOHYDROLASE, FOLATE, 2 OXIDOREDUCTASE HEADER	OXIDOREDUCTASE, HYDROLASE FOLATE, DEHYDROGENASE, CYCLCOHYDROLASE, BIFUNCTIONAL, 2 CHANNELING, OXIDOREDUCTASE, HYDROLASE	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING,
Coumpound	BINDING PROTEIN G(I); CHAIN: A, D, RGS4; CHAIN: E, H;	GAIP (G-ALPHA INTERACTING) PROTEIN; CHAIN: A;	METHYLENETETRAHYDROFO LATE DEHYDROGENASE / CHAIN: A, B;	FOLD BIFUNCTIONAL PROTEIN; CHAIN: A;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;
SEQFOL D score		121.40	94.97	106.54	
PMF					0.52
Verify score					-0.23
Psi Blast		3.2e-46	4.8e-74	8e-77	8e-34
END		172	235	235	157
STAR T AA		46	۶		18
CHAI N ID		4	A	∢	В
PDB UD		lcmz	1a4i	1b0a	Iawc
SEQ NO:		1301	1302	1302	1307

PDB annotation	2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATE,	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	COMPLEX (KINASE/ANTI- ONCOGENE) CDK6; P16INK44, MTS1; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, MULTIPLE TUMOR SUPPRESSOR, 3 MTS1, COMPLEX (KINASE/ANTI- ONCOGENE) HEADER	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX
Coumpound		GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; MULTIPLE TUMOR SUPPRESSOR; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; PI9INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;
SEQFOL D score						
PMF score			0.19	0.04	0:00	0.37
Verify score		-0.09	-0.01	0.14	-0.17	0.01
Psi Blast		4.8e-29	8e-27	6.46-17	6.4e-26	1.3e-23
END		125	160	260	160	183
STAR T AA		м	21	443	21	20
CHAI N ID	<u>. </u>	മ		B	B	B
PDB ID		lawc	1bd8	1bi7	1bk	1blx
SEQ ID NO:		1307	1307	1307	1307	1307

PDB annotation	(INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR,	P18INK4C, TUMOR, SUPPRESSOR,	CICLIN-Z DEFENDENT KINASE, HORMONE/GROWTH FACTOR	SIGNALING PROTEIN HELIX-TURN-	HELIX, ANKYRIN REPEAT	CELL CYCLE INHIBITOR P18-	INHIBITOR, PI8-INK4C(INK6).	ANKYRIN REPEAT, 2 CDK 4/6	INHIBITOR	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE	INHIBITOR, PI8-INK4C(INK6),	ANKYRIN REPEAT, 2 CDK 4/6	ANE PEPEAT MYOTEOPHIN	ACETYLATION NMR ANK-REPEAT	שמבו ודשווטוי וויוווי בחונים דעו	EXTRACELLULAR MODULE	TUMOR-ASSOCIATED ANTIGEN	90K; EXTRACELLULAR MODULE,	SCAVENGER RECEPTOR, TUMOUR-	ASSOCIATED 2 ANTIGEN,	EXTRACELLULAR MATRIX,	GLYCOSYLATED PROTEIN	OXIDOREDUCTASE	OXIDOREDUCTASE, TROPANE	REDITCHON OF 2 TROPINONE TO	TROPINE, SHORT-CHAIN
Coumpound		CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;			CYCLIN-DEPENDENT KINASE	4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE	o mainingly, crimin, A, B,			CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;			MVOTPOPHINI: CHAINI: NIII 1			MAC-2 BINDING PROTEIN;	CHAIN: NULL;						TROPINONE REDUCTASE-I;	CHAIN: A, B;		
SEQFOL D score																		112.99							73.73			
PMF score		0.15		-	90.0		0.10				0.37				100	2)			
Verify		-0.12			0.14		-0.12				0.01				71.0	;												
Psi Blast		6.4e-25			1.6e-17		1.3e-25				3.2e-24				1 60 30	2		1.1e-44							1.6e-66			
END AA		130			267		191				129				127	;		138							304			-1
STAR T AA		-			443		18				_				2	` <u> </u>		26				•			34			
CEAI N ID		¥			A		¥				∢														Ą			
PDB ID		1bu9			1d9s		1ih				lihb				l my	2		1by2							lael			
SEQ No.		1307			1307		1307				1307				1307	3		1314							1315			

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PDB annotation	DEHYDROGENASE	OXIDOREDUCTASE OXIDOREDUCTASE, TROPANE	ALKALOID BIOSYNTHESIS, REDIICTION OF 2 TROPINONE TO	TROPINE, SHORT-CHAIN DEHYDROGENASE	OXIDOREDUCTASE NAD-	DEPENDENT OXIDOREDUCTASE, SHORT-CHAIN ALCOHOL 2	DEHYDROGENASE, PCB	OXIDOREDUCTASE SHORT-CHAIN	DEHYDROGENASE, OXIDOREDUCTASE	DEHYDROGENASE	DEHYDROGENASE, 17-BETA-	ATDROATSTEROID	DEHYDROGENASE/REDUCTASE,	BILE ACID CATABOLISM						OXIDOREDUCTASE SEPIAPTERIN	REDUCTASE,	TETRAHYDROBIOPTERIN,	OXIDOREDUCTASE	OXIDOREDUCTASE NAPHTHOL REDUCTASE: OXIDOREDUCTASE	OXIDOREDUĆTASE
Сонтронид		TROPINONE REDUCTASE-I; CHAIN: A, B;			CIS-BIPHENYL-2,3-	DIHYDRODIOL-2,3- DEHYDROGENASE: CHAIN:	NULL;	CARBONYL REDUCTASE;	CHAIN: A, B, C, D;	17-BETA-HYDROXYSTEROID-	DEHYDROGENASE; CHAIN:	NOLL,	DEHYDROGENASE; CHAIN: A,	B;	OXIDOREDUCTASE 3-ALPHA,	20-BETA-HYDROXYSTEROID	DEH I DRUGENASE	COMPLEXED WITH	CARBENOXOLONE 1HDC 4	SEPIAPTERIN REDUCTASE;	CHAIN: NULL;			TRIHYDROXYNAPHTHALENE REDUCTASE: CHAIN: A. B.	TROPINONE REDUCTASE-II;
SEQFOL D score		76.92			65.57			69.13		79.80		3000	97:79		74.82					65.22				82.44	76.67
PMF score																									
Verify																									
Psi Blast		89-99'6	·		1.6e-47		•	3.2e-54		4.8e-32			0.46-00		4.8e-67					3.2e-21				3.2e-61	9.6e-65
END AA		304			314			297		319		5	867	į	306					297				308	291
STAR T AA		34	-		35			35		38		(Oc		35					35	-			24	32
CHAI N ID		Ф						⋖					∢		¥									V	Ą
PDB ID		lael			1bdb			lcyd		1fds		3			1hdc					loaa				1ybv	2ae2
SEQ ID NO:		1315			1315			1315		1315		1112	CICI		1315					1315				1315	1315

PDB annotation	OXIDOREDUCTASE, TROPANE ALKALOID BIOSYNTHESIS, REDUCTION OF 2 TROPINONE TO PSEUDOTROPINE, SHORT-CHAIN DEHYDROGENASE	ISOMERASE FKBP25 C-TERMINAL DOMAIN; FKBP12 HOMOLOGOUS DOMAIN OF HFKBP25, ISOMERASE	COMPLEX (GTPASE-ACTIVATING/GTP-BINDING) COMPLEX (GTPASE-ACTIVATING/GTP-BINDING), GTPASE-ACTIVATION	TRANSPORT PROTEIN TC4; GTPASE, NUCLEAR TRANSPORT, TRANSPORT PROTEIN	TRANSPORT PROTEIN TC4; GTPASE, NUCLEAR TRANSPORT, TRANSPORT PROTEIN	SIGNALING PROTEIN GTP-BINDING PROTEINS, PROTEIN-PROTEIN COMPLEX, EFFECTORS	SIGNALING PROTEIN G PROTEIN, GTP HYDROLYSIS, KINETIC CRYSTALLOGRAPHY, 2 SIGNALING PROTEIN	SIGNALING PROTEIN PROTEIN- PROTEIN COMPLEX, ANTIPARALLEL COILED-COIL	SMALL GTPASE KARYOPHERIN
Coumpound	CHAIN: A, B;	FKBP25; CHAIN: NULL;	PS0-RHOGAP; CHAIN: A, B, C; CDC42HS; CHAIN: D, E, F;	GTP-BINDING PROTEIN RAN; CHAIN: A, B;	GTP-BINDING PROTEIN RAN; CHAIN: A, B;	RAS-RELATED PROTEIN RAP- 1A; CHAIN: A; PROTO- ONKOGENE SERINE/THREONINE PROTEIN KINASE CHAIN: B;	TRANSFORMING PROTEIN P21/H-RAS-1; CHAIN: A;	HIS-TAGGED TRANSFORMING PROTEIN RHOA(0-181); CHAIN: A: PKN; CHAIN: B:	RAN; CHAIN: A, C; IMPORTIN
SEQFOL D score		194.11	50.20	61.74	64.26	79.57	93.92	52.92	60.48
PMF									
Verify score									
Psi Blast		1.3e-24	3.2e-43	3.2e-32	4.8e-33	4.8e-64	1.3e-64	1.6e-50	1.1e-31
END AA		339	218	244	245	203	204	204	209
STAR T AA		224	31	29	27	31	33	28	34
CHAI			Д	<	Ω	V	V	∢	Ą
PDB ID		lpbk	lam4	1byu	1byu	lely	1ctq	1cxz	libr
SEQ Signal		1321	1323	1323	1323	1323	1323	1323	1323

PDB annotation	BETA, P95 SMALL GTPASE, NUCLEAR TRANSPORT RECEPTOR	GTP-BINDING PROTEIN GTP- BINDING PROTEIN, SMALL G PROTEIN, RAP2, GDP, RAS	GTP-BINDING GTP-BINDING, GTPASE, SMALL G-PROTEIN, RHO FAMILY, RAS SUPER 2 FAMILY	COMPLEX (SMALL GTPASE/NUCLEAR PROTEIN)	COMPLEX (SMALL GTPASE/NUCLEAR PROTEIN), SMALL GTPASE, 2 NUCLEAR TRANSPORT	COMPLEX (GTP- BINDING/EFFECTOR) RAS-RELATED	PROTEIN RAB3A; COMPLEX (GTP-BINDING/EFFECTOR), G PROTEIN,	EFFECTOR, RABCDR, 2 SYNAPTIC	EXOCYTOSIS, KAB PROTEIN, RAB3A, RABPHILIN	HYDROLASE CDC42/CDC42GAP;	STATE, G-PROTEIN, GAP, CDC42,	ALF3., HYDROLASE	VESICULAR TRAFFICKING, GTP	HYDROLYSIS, RAB 2 PROTEIN,	HYDROLASE	TRANSFERASE TRANSFERASE, SERINE/THREONINE-PROTEIN
Coumpound	BETA SUBUNIT; CHAIN: B, D;	RAP2A; CHAIN: NULL;	RACI; CHAIN: NULL;	RAN; CHAIN: A, C; NUCLEAR PORE COMPLEX PROTEIN	NUP358; CHAIN: B, D;	RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B;				GTP BINDING PROTEIN (G25K);	ACTIVATING PROTEIN (RHG);	CHAIN: B;	KABSA; CHAIN: A;			PROTEIN KINASE CKZALPHA- SUBUNIT; CHAIN: NULL;
SEQFOL D score	1	91.54	62.77	59.75		63.61				57.05		,,,,,,	01.70			107.93
PMF															,	
Verify score																
Psi Blast		6.4e-61	1.6e-51	1.1e-31		9.6e-58				1.6e-46		9,	1.06-38			1.6e-80
END		204	222	227		209				230		300	5 04			236
STAR T AA		31:	30	31		29				33		5	0¢			167
CHAI N ID				U		Ą				Ą			<			
PDB ID		1kao	1mh1	gr.I		1zbd				2ngr			Srao			1a60
SEQ ID		1323	1323	1323		1323			_	1323		565	57			1324

PDB annotation	SER/THR KINASE	PROTEIN KINASE CDK2; PROTEIN KINASE, CELL CYCLE, PHOSPHORYLATION, STAUROSPORINE, 2 CELL DIVISION, MITOSIS, INHIBITION	COMPLEX (KINASE/INHIBITOR) CDK6; PI9INK4D; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE OYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, COMPLEX (KINASE/INHIBITOR) HEADER HELIX	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)			PROTEIN KINASE CDK2; TRANSFERASE, SERINE/THREONINE PROTEIN KINASE, ATP-BINDING, 2 CELL CYCLE, CELL DIVISION, MITOSIS, PHOSPHORYLATION
Coumpound		CYCLIN-DEPENDENT PROTEIN KINASE 2; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A, C; CYCLIN- DEPENDENT KINASE INHIBITOR; CHAIN: B, D;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	PHOSPHOTRANSFERASE CAMP-DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT ICMK 3 (E.C.2.7.1.37) ICMK 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3 (CATALYTIC SUBUNIT) 1CTP 4	HUMAN CYCLIN-DEPENDENT KINASE 2; CHAIN: NULL;
SEQFOL D score		129.21	122.05	133.50	102.25	102.19	141.09
PMF score							
Verify score							
Psi Blast		0	1.6e-81	3.2e-91	8e-48	3.2e-47	0
END AA		503	493	499	503	503	503
STAR		961	197	192	091	165	196
CHAI N ID			∢	K	ш	ല	
PDB ID		1aq1	15:8	1blx	Icmk	Ictp	Ihcl
SEQ NO EP		1324	1324	1324	1324	1324	1324

PDB annotation	SERINE/THREONINE-PROTEIN KINASE CSBP, RK, P38; PROTEIN SER/THR-KINASE, SERINE/THREONINE-PROTEIN KINASE	TRANSFERASE INK3; TRANSFERASE, INK3 MAP KINASE, SERINE/THREONINE PROTEIN 2 KINASE	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE; TRANSFERASE, MAP KINASE, SERINE/THREONINE-PROTEIN KINASE, 2 P38	TRANSFERASE MAP KINASE, SERINE/THREONINE PROTEIN KINASE, TRANSFERASE	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE, MAP 2, ERK2; TRANSFERASE, SERINE/THREONINE-PROTEIN KINASE, MAP KINASE, 2 ERK2	TRANSFERASE TRANSFERASE, SERINE/THREONINE-PROTEIN KINASE, CASEIN KINASE, 2 SER/THR KINASE	PROTEIN KINASE CDK2; PROTEIN KINASE, CELL CYCLE, PHOSPHORYLATION, STAUROSPORINE, 2 CELL DIVISION, MITOSIS, INHIBITION
Coumpound	P38 MAP KINASE; CHAIN: NULL;	C-JUN N-TERMINAL KINASE; CHAIN: NULL;	TWITCHIN; CHAIN: A, B;	MAP KINASĒ P38; CHAIN: NULL;	ERK2; CHAIN: NULL;	EXTRACELLULAR REGULATED KINASE 2; CHAIN: NULL;	PROTEIN KINASE CK2/ALPHA- SUBUNIT; CHAIN: NULL;	CYCLIN-DEPENDENT PROTEIN KINASE 2; CHAIN: NULL;
SEQFOL D score	117.40	136.35	105.97	150.88	128.64	140.27	108.11	129.37
PMF score								
Verify score								
Psi Blast	1.6e-97	9.6e-100	1.6e-51	0	0	0	6.4e-80	0
END AA	567	563	522	570	568	509	496	503
STAR T AA	081	180	170	179	190	181	167	196
CHAI			⋖					
PDB ID	lian	1jnk	1kob	1p38	1pme	3erk	1a60	laqı
SEQ No.	1324	1324	1324	1324	1324	1324	1325	1325

PDB annotation	COMPLEX (KINASE/INHIBITOR) CDK6; P19INK4D; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE, INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, COMPLEX (KINASE/INHIBITOR) HEADER HELIX	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)			PROTEIN KINASE CDK2; TRANSFERASE, SERINE/THREONINE PROTEIN KINASE, ATP-BINDING, 2 CELL CYCLE, CELL DIVISION, MITOSIS, PHOSPHORYLATION	SERINE/THREONINE-PROTEIN KINASE CSBP, RK, P38; PROTEIN SER/THR-KINASE, SERINE/THREONINE-PROTEIN KINASE	TRANSFERASE JNK3;
Coumpound	CYCLIN-DEPENDENT KINASE 6; CHAIN: A, C; CYCLIN- DEPENDENT KINASE INHIBITOR; CHAIN: B, D;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; PI9INK4D; CHAIN: B;	PHOSPHOTRANSFERASE CAMP-DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT ICMK 3 (E.C.2.7.1.37) ICMK 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3 (CATALYTIC SUBUNIT) 1CTP 4	HUMAN CYCLIN-DEPENDENT KINASE 2; CHAIN: NULL;	P38 MAP KINASE; CHAIN: NULL;	C-JUN N-TERMINAL KINASE:
SEQFOL D score	122.26	133.76	102.41	102.34	141.19	118.03	136.46
PMF							
Verify score							
Psi Blast	9886	1.3e-94	3.2e-49	3.2e-49	0	0	4.8e-100
END AA	493	499	503	503	503	567	563
STAR T AA	197	192	160	165	196	180	180
CHAI N ID	∢	∢	щ	ជ			
PDB ID	15:8	1blx	lcmk	Істр	1hcl	lian	1jrk
SEQ NO:	1325	1325	1325	1325	1325	1325	1325

PDB annotation	TRANSFERASE, INK3 MAP KINASE, SERINE/THREONINE PROTEIN 2 KINASE	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE; TRANSFERASE, MAP KINASE, SERINE/THREONINE-PROTEIN KINASE, 2 P38	TRANSFERASE MAP KINASE, SERINE/THREONINE PROTEIN KINASE, TRANSFERASE	SERINE KINASE SERINE KINASE, TITIN, MUSCLE, AUTOINHIBITION	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE, MAP 2, ERK2; TRANSFERASE, SERINE/THREONINE-PROTEIN KINASE, MAP KINASE, 2 ERK2	HYDROLASE PROSEGMENT, PROPEPTIDE, INHIBITION, HYDROLASE	HYDROLASE PROSEGMENT, PROPEPTIDE, INHIBITION, HYDROLASE	CELL ADHESION PROTEIN EPITHELIAL CADHERIN DOMAINS 1 AND 2, ECAD12; CADHERIN, CELL ADHESION PROTEIN, CALCIUM BINDING PROTEIN
Coumpound	CHAIN: NULL;	TWITCHIN; CHAIN: A, B;	MAP KINASE P38; CHAIN: NULL;	BRK2; CHAIN: NULL;	TITIN; CHAIN: A, B;	EXTRACELLULAR REGULATED KINASE 2; CHAIN: NULL;	HUMAN PROCATHEPSIN L; CHAIN: A;	HUMAN PROCATHEPSIN L; CHAIN: A;	E-CADHERIN; CHAIN: A, B;
SEQFOL D score		106.60	151.09	128.85	99.53	140.42	368.72	412.39	124.30
PMF score									
Verify									
Psi Blast		9.6e-53	0	0	1.1e-44	0	0	0	8e-50
END		522	570	568	519	509	350	391	269
STAR T AA		170	179	061	194	181	_	61	9
CHAJ N ID		A			A		A A	4	4
PDB ID		1kob	1p38	1рте	Itki	3erk	1cs8	1cs8	1edh
SEQ NO		1325	1325	1325	1325	1325	1327	1328	1333

PDB annotation	CELL ADHESION PROTEIN CELL ADHESION PROTEIN				GUANINE NUCLEOTIDE EXCHANGE FACTOR RCC1; GUANINE NUCLEOTIDE EXCHANGE FACTOR,	GEF, KAN, 2 KAS-LIKE NUCLEAR GTP BINDING PROTEIN HEADER TER	EYE LENS PROTEIN EYE LENS PROTEIN	EYE LENS PROTEIN EYE LENS PROTEIN	CRYSTALLIN GAMMA II- CRYSTALLIN EYE LENS PROTEIN, CRYSTALLIN	EYE-LENS PROTEIN EYE-LENS PROTEIN, BETA-CRYSTALLIN B,
Coumpound	N-CADHERIN; CHAIN: A;	LIPID-BINDING PROTEIN ADIPOCYTE LIPID-BINDING PROTEIN COMPLEXED WITH ARACHIDONIC IADL 3 ACID 1ADL 4	LIPID-BINDING PROTEIN FATTY ACID BINDING PROTEIN (HUMAN MUSCLE, M-FABP) COMPLEXED 1HMR 3 WITH ONE MOLECULE OF ELAIDIC ACID 1HMR 4	CELLULAR LIPOPHILIC TRANSPORT PROTEIN P2 MYELIN PROTEIN (P2) IPMP 3	REGULATOR OF CHROMOSOME CONDENSATION I; CHAIN: A,	B, C.	GAMMAF CRYSTALLIN; CHAIN: NULL	GAMMAE CRYSTALLIN; CHAIN: A, B	GAMMA B-CRYSTALLIN; CHAIN: NULL;	CIRCULARLY PERMUTED BB2- CRYSTALLIN; CHAIN: A, B;
SEQFOL D score	129.50	158.94	146.24	161.49	141.30		122.87	121.88	125.68	80.96
PMF score										
Verify score										
Psi Blast	8e-52	9.6e-56	6.4e-58	3.2e-55	1.6e-78		1.4e-61	4.8e-63	3.2e-65	1.6e-39
END AA	268	133	133	133	409		148	148	148	147
STAR T AA	2	3	m.	£	=		-		_	-
CHAI	4			V	₹			∢		A
PDB ID	lncj	ladi	Ihmr	duidį	1a12		1a45	laSd	lam m	1bd7
SEQ NO.	1333	1335	1335	1335	1340		1345	1345	1345	1345

			T		 		_		
PDB annotation	EYE-LENS PROTEIN, 2 MULTIGENE FAMILY	EYE LENS PROTEIN EYE LENS PROTEIN	COMPLEX (GTP- BINDING/TRANSDUCER) BETAI, TRANSDUCIN BETA SUBUNIT; GAMMAI, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION		IRON STORAGE IRON STORAGE	MEMBRANE ADHESION SHORT CONSENSUS REPEAT, SUSHI, COMPLEMENT CONTROL PROTEIN, 2 N-GLYCOSYLATION, MULTI- DOMAIN, MEMBRANE ADHESION		COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF
Coumpound		GAMMA-D CRYSTALLIN; CHAIN: A, B	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	EYE LENS PROTEIN BETA-B2- CRYSTALLIN 2BB2 3	FERRITIN; CHAIN: NULL;	HUMAN BETA2. GL YCOPROTEIN I; CHAIN: A;		GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;
SEQFOL D score		122.84	60.77	99.58	273.99	84.05		64.05	54.79
PMF score									
Verify score									
Psi Blast		1.3e-62	9.6e-31	1.6e-47	8e-73	1.6e-11		1.6e-39	8e-30
END		148	388	148	177	484		192	161
STAR T AA		-	84	1	9	184		38	2
CHAI N ID		4	В			А		Ø	
PDB ID		1elp	lgot	2bb2	2fha	Iqub		lawc	8pq1
SEQ SO IS		1345	1345	1345	1352	1353		1363	1363

PDB annotation	COMPLEX (NHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINAȘE, HORMONE/GROWTH FACTOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	ENDOCYTOSIS/EXOCYTOSIS BETA SANDWICH, CALCIUM ION, C2 DOMAIN	ENDOCYTOSIS/EXOCYTOSIS BETA SANDWICH, CALCIUM ION, C2 DOMAIN
Coumpound	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	MYOTROPHIN; CHAIN: NULL	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	SYNAPTOTAGMIN III; CHAIN: A;	SYNAPTOTAGMIN III; CHAIN: A;
SEQFOL D score	55.34	54.53	54.88	67.03	53.66	64.27		
PMF score							1.00	1.00
Verify score							0.64	0.49
Psi Blast	8e-29	1.6e-34	8e-34	4.8e-38	3.2e-25	1.6e-38	8.5e-91	3.2e-46
END AA	165	212	162	307	156	243	415	415
STAR T AA	-	31	S	23	39	31	143	144
CHAI N ID	В	٧	A	Q		ជ	<	А
PDB UI	1blx	1bu9	lihb	lika	Imyo	lnfi	ldqv	Idqv
SEQ NO EQ	1363	1363	1363	1363	1363	1363	1366	1366

PDB annotation			OVIDANTEDITOTA OR EATTY A CITY	HYDROXYLASE; FATTY ACID MONOOXYGENASE, HEMOPROTEIN, P450 REMARK	OXIDOREDUCTASE (OXYGENASE)		MOTOR PROTEIN MOTOR PROTEIN, ATPASE, MICROTUBULE ASSOCIATED	MOTOR PROTEIN MOTOR PROTEIN, ATPASE, MICROTUBULE ASSOCIATED	CONTRACTILE PROTEIN NCD, CLARET SEGREGATIONAL PROTEIN; NCD CRYSTAL STRUCTURE, MICROTUBULE MOTORS, KINESIN 2 SUPERFAMILY, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN NCD, CLARET SEGREGATIONAL PROTEIN; NCD CRYSTAL STRUCTURE, MICROTUBULE MOTORS, KINESIN 2 SUPERFAMILY, CONTRACTILE PROTEIN
Coumpound	CALCIUMPHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	CALCIUMPHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	A LOAD OFFICE THE CONTROL OF THE PARTY OF TH	C I I OCHROME 1430; CHAIN: A, B;	CYTOCHROME P450 ERYF; 10XA 5 CHAIN: NULL 10XA 6		KINESIN; CHAIN: NULL;	KINESIN; CHAIN: NULL;	MICROTUBULE MOTOR PROTEIN NCD; CHAIN: A, B, C, D;	MICROTUBULE MOTOR PROTEIN NCD; CHAIN: A, B, C, D;
SEQFOL D score		122.64	70.00	00.761	67.59		210.20			
PMF score	1.00							1.00	1.00	1.00
Verify score	0.40							0.54	0.65	0.46
Psi Blast	3.4e-40	3.4e-40	8	1.06-92	3.2e-31	l	8e-89	8e-89	6.8e-79	3.2e-72
END	270	270	, 6,	ç Ç	504		340	340	340	341
STAR T AA	134	134	Ş	7	23		2	4	-	-
CEAI N ID				∢					∢	V
PDB TD	lrsy	lrsy		/nar	loxa		1bg2	1bg2	1cz7	1cz7
SE Se Se Se Se Se Se Se Se Se Se Se Se Se	1366	1366	3,2,5	8061	1368		1372	1372	1372	1372

PDB annotation	CONTRACTILE PROTEIN NCD, CLARET SEGREGATIONAL PROTEIN; NCD CRYSTAL STRUCTURE, MICROTUBULE MOTORS, KINESIN 2 SUPERFAMILY, CONTRACTILE PROTEIN	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	CONTRACTILE PROTEIN KINESIN, MICROTUBULE-BASED MOTOR, NCD, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN KINESIN, MICROTUBULE-BASED MOTOR, NCD, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN, MOTOR 2 PROTEIN, ATPASE, P- LOOP, MICROTUBULE BINDING PROTEIN	CONTRACTILE PROTEIN CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN, MOTOR 2 PROTEIN, ATPASE, P- LOOP, MICROTUBULE BINDING PROTEIN
Coumpound	MICROTUBULE MOTOR PROTEIN NCD; CHAIN: A, B, C, D;	KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN MOTOR NCD; CHAIN: A;	KINESIN MOTOR NCD; CHAIN: A;	KINESIN-LIKE PROTEIN KAR3; CHAIN: NULL;	KINESIN-LIKE PROTEIN KAR3; CHAIN: NULL;
SEQFOL D score	156.19	139.58						152.53	185.05	
PMF score			1.00	1.00	96.0	0.99	1.00			1.00
Verify score			0.25	0.29	-0.01	-0.02	0.46			0.31
Psi Blast	6.8e-79	1.2e-58	3.2e-57	1.2e-58	3.4e-28	8e-27	1.6e-72	1.6e-72	5.1e-74	6.4e-72
END	342	252	252	252	352	358	339	340	338	339
STAR T AA	-	2	4	9	265	265	-	-	ا م	9
CHAI N ID	¥	¥	Ą	Y	В	В	4	۷ .		
PDB TD	1cz7	2kin	2kin	2kin	2kin	2kin	2ncd	2ncd	3kar	Зкаг
SEQ NO EQ	1372	1372	1372	1372	1372	1372	1372	1372	1372	1372

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PDB annotation	CONTRACTILE PROTEIN CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN, MOTOR 2 PROTEIN, ATPASE, P- LOOP, MICROTUBULE BINDING PROTEIN	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH
Coumpound	KINËSIN-LIKE PROTEIN KAR3; CHAIN: NULL;	KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;	KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INFIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;
SEQFOL D score							
PMF score	1.00	0.99	0.98	0.04	-0.05	0.00	0.37
Verify score	0.50	0.19	-0.10	0.19	0.26	0.10	0.29
Psi Blast	5.1e-74	1.4e-26	3.2e-26	4.8e-12	4.8e-09	9.6e-14	le-19
END	338	352	384	448	545	361	230
STAR T AA	7	269	269	123	134	45	63
CHAI N ID		æ	В	4	4	4	∢
PDB ID	3kar	3kin	3kin	la4y	la4y	1a4y	la4y
SEQ ID NO:	1372	1372	1372	1373	1373	1373	1373

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PDB annotation	3 REPEATS	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA.	SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA,	SNRNP, RIBONUCLEOPROTEIN	INSECT IMMUNITY INSECT	IMMUNITY, LPS-BINDING,	HOMOPHILIC ADHESION	INSECT IMMUNITY INSECT	IMMUNITY, LPS-BINDING,	CONTROLLING AT CONTROLLING	CONTROLLIN AVI, CONNECTEN,	TYPE III
Coumpound		U2 RNA HAIRPIN IV; CHAIN: Q. R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q. R: 1/2 A': CHAIN: A. C: U2 B":	CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q.	R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B. D:		U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;		HEMOLIN; CHAIN: A, B;	•		HEMOLIN; CHAIN: A, B;		TITINI CULATAL ALLET	IIIIN; CIPAIN: NOLL;	
SEQFOL D score																							
PMF score		0.42	0.17	9.0		0.53			0.04			0.55				0.77			0.25		500) ()	
Verify score		99.0	0.43	0.55		0.48			0.24			99.0				0.33			0.37		100	5.5	
Psi Blast		5.1e-19	3.4e-22	3.4e-19		3.4e-18			1.4e-22			3.4e-19				6.8e-14			1.7e-10		2 42.07	2.46-07	
END AA		264	220	231		264			220			231			1	387			427		202	900	
STAR T AA		114		06		114			9			8				294			295		12,	174	
CHAI N ID		Ą	Ą	A		ပ			၁			ပ				₹			⋖				
PDB ID		Ta9n	1a9n	la9n		la9n			1a9n			la9n				Hoi High			1bih		142	Adar	
SEQ ID NO:		1373	1373	1373		1373			1373			1373			5	1373			1373		1373	5/51	

PDB annotation	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FOF, FOFK, IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWIH FACTOR/GROWIH FACTOR RECEPTOR	CELL ADHESION LEUCINE RICH	ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL	ADHESION	CELL ADHESION LEUCINE RICH	REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH	REPEAT, CALCIUM BINDING, CELL	CELL ADHESION I FILCINE RICH	REPEAT, CALCIUM BINDING, CELL	ADHESION	TRANSFERASE CRYSTAL	STRUCTURE, RAB GERANYLGERANYLTRANSFERASE,
Coumpound	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;	INTERNALIN B; CHAIN: A;		INTERNALIN B; CHAIN: A;		INTERNALIN B; CHAIN: A;	,	INTERNALIN B; CHAIN: A;		INTERNATIN B. CHAIN: A.	() ()		RAB	GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT;
SEQFOL D score									•													
PMF score	-0.05	0.19	1.00			0.57				0.05		-0.15		0.57		-0.19		030			0.23	
Verify score	0.01	0.31	0.65			0.29				0.02		60.0		0.13	•	0.05		0.31			-0.43	
Psi Blast	8.5e-15	3.4e-12	8.5e-14			1.2e-14				6.4e-26		8e-24		1.4e-22		1.6e-14		86-22	}		60 - 99.6	
END AA	388	409	389			383				310		332		211		547		265	}		95	
STAR T AA	286	295	306			296				152		176		37		423		79	\ 		32	
CHAI N ID	¥	¥	၁			D				Ą		¥		٧		Ą		A	 	_]	Ą	
PDB ID	1cs6	1cs6	levs			lcvs				140b		90P1		140b		140b		1404			1dce	
SEQ NO:	1373	1373	1373			1373				1373		1373		1373		1373		1373			1373	

PDB annotation		2.0 A 2 RESOLUTION, N-FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N- FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE 1- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	LIGASE CYCLIN A/CDK2- ASSOCIATED PROTEIN P45; CYCLIN A/CDK2-ASSOCIATED PROTEIN P19; SKP1, SKP2, F-BOX, LRR, LEUCINE- RICH REPEAT, SCF, UBIQUITIN, 2 E3. UBIOUTIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2-
Coumpound		CHAIN: A, C; RAB GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN: B, D;	RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT; CHAIN: A, C; RAB GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN: B, D;	OUTER ARM DYNEIN; CHAIN: A;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	SKP2; CHAIN: A, C, E, G, I, K, M, O; SKP1; CHAIN: B, D, P, H, J, L, N, P;	SKP2; CHAIN: A, C; SKP1;
SEQFOL	D score							
PMF	score		0.15	0.28	80:0-	0.13	0.54	0.31
Verify	score		-0.03	-0.41	0.13	0.22	0.26	0.03
Psi Blast			80-98	1.6e-10	5.1e-14	6.8e-16	1.7e-13	3.4e-18
END	AA		171	186	383	387	231	231
STAR	I AA		37	95	292	296	2	53
CHAI	OI N		∢	¥.	ក	O	⋖	A
PDB	a		1dce	1ds9	lev2	lev2	1fqv	1fs2
SEQ	g ö		1373	1373	1373	1373	1373	1373

PDB annotation	ASSOCIATED P45; CYCLIN A/CDK2-ASSOCIATED P19; SKP1, SKP2, F-BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	NN MAN)	MUSCLE PROTEIN CONNECTIN, NEXTMS, CELL ADHESION, GLYCOPROTEIN, TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD, ALTERNATIVE SPLICING, SIGNAL, 3 MUSCLE PROTEIN	MINI	CTIN)	CELL ADHESION PROTEIN VCAM- D1,2; IVCA 6 IMMUNOGLOBULIN SUPERFAMILY, INTEGRIN-BINDING IVCA 15	GLYCOPROTEIN CD4; NIN: IMMUNOGLOBULIN FOLD, TRANSMEMBRANE, GLYCOPROTEIN, T-CELL, 2 MHC LIPOPROTEIN, POLYMORPHISM	TRANSCRIPTION RNAIP; RANGAP;
Coumpound	CHAIN: B, D;	TLYMPHOCYTE ADHESION GLYCOPROTEIN CD2 (HUMAN) HINF 3	TITIN; CHAIN: NULL;	MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) ITNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) ITNM 4 ITNM 58	GLYCOPROTEIN FIBRONECTIN (TENTH TYPE III MODULE) (NMR, 36 STRUCTURES) 1TTF 3	HUMAN VASCULAR CELL ADHESION MOLECULE-1; 1VCA 4 CHAIN: A, B; 1VCA 5	T-CELL SURFACE GLYCOPROTEIN CD4; CHAIN: A, B;	GTPASE-ACTIVATING
SEQFOL D score								
PMF score		0.27	0.31	0.76	0.40	0.16	0.00	-0.14
Verify		0.39	0.56	0.60	-0.29	0.46	0.37	0.04
Psi Blast		1.7e-08	6.8e-19	1.7e-16	3.4e-07	1.7e-11	3.4e-12	1.1e-09
END AA		405	383	383	502	394	411	362
STAR T AA		303	292	305	424	297	280	132
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PDB ID		1haf	Inct	Itnm	Itt	lvca	Iwio	Тутв
SEQ No. 15		1373	1373	1373	1373	1373	1373	1373

PDB annotation	FOR SPII, GTPASE-ACTIVATING PROTEIN, GAP, RNAIP, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, 3 MEROHEDRAL TWINNING, MEROHEDRY	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULIN	CELL ADHESION PROTEIN NCAM MODULE 2; CELL ADHESION, GLYCOPROTEIN, HEPARIN- BINDING, GPI-ANCHOR, 2 NEURAL ADHESION MOLECULE, IMMUNOGLOBULIN FOLD, HOMOPHILIC 3 BINDING, CELL	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN
Coumpound	CHAIN: A, B;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	NEURAL CELL ADHESION MOLECULE, LARGE ISOFORM; CHAIN: A;	ALPHA SPECTRIN; CHAIN: A, B, C;
SEQFOL D score						61.31
PMF score		0.03	90.0	-0.05	0.35	
Verify score		0.04	0.13	0.20	0.92	
Psi Blast		1.4e-18	1.7e-23	3.4e-11	3.4e-17	0.0017
END		359	231	396	383	293
STAR T AA		45	47	294	296	65
CHA1 N ID				٧	A	4
PDB ID		2bnh	2bnh	2dli	Зпст	lcun
SEQ SO E		1373	1373	1373	1373	1374

PDB annotation	CONTRACTILE PROTEIN NCD, CLARET SEGREGATIONAL PROTEIN; NCD CRYSTAL STRUCTURE, MICROTUBULE MOTORS, KINESIN 2 SUPERFAMILY, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	TRANSCRIPTION REGULATION SIGMA70; RNA POLYMERASE SIGMA FACTOR, TRANSCRIPTION REGULATION	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	CONTRACTILE PROTEIN CONTRACTILE PROTEIN, KAR3, KINESIN-RELATED PROTEIN, MOTOR 2 PROTEIN, ATPASE, P- LOOP, MICROTUBULE BINDING PROTEIN	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN, CYTOSKELETON	SURFACE PROTEIN MEROZOITE SURFACE ANTIGEN 1, MAJOR BLOOD-STAGE EGF-LIKE DOMAIN, EXTRACELLULAR, MODULAR
Coumpound	MICROTUBULE MOTOR PROTEIN NCD; CHAIN: A, B, C, D;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	RNA POLYMERA SE PRIMARY SIGMA FACTOR; CHAIN: NULL;	KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN-LIKE PROTEIN KAR3; CHAIN: NULL;	KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;	KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;	MEROZOITE SURFACE PROTEIN 1; CHAIN: A;
SEQFOL D score		66.44	65.31			65.43			68.48	
PMF score	0.66			0.12	0.81		0.60	98.0		0.03
Verify	-0.46			-0.55	-0.41		-0.52	-0.15		-0.02
Psi Blast	5.1e-34	3.4e-05	0.0017	5.1c-15	1.7e-27	1.7e-27	1e-30	6.8e-25	6.8e-25	5.1e-19
END	131	295	318	42	141	154	127	142	176	405
STAR TAA		53	36	-	55	55	· -	59	59	323
CHAI	4	¥		¥	E	В		В	æ	ď
PDB ID	1027	Iquu	lsig	2kin	2kin	2kin	3kar	3kin	3kin	Icej
SE B SE	1374	1374	1374	1374	1374	1374	1374	1374	1374	1376

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PDB annotation	PROTEIN, SURFACE 2 ANTIGEN, MALARIA VACCINE COMPONENT, SURFACE PROTEIN	SURFACE PROTEIN MEROZOITE	BLOOD-STAGE EGF-LIKE DOMAIN, EXTRACELLILAR, MODULAR	PROTEIN, SURFACE 2 ANTIGEN, MALARIA VACCINE COMPONENT.	SURFACE PROTEIN	SURFACE PROTEIN MEROZOITE	SURFACE ANTIGEN I, MAJOR BI OOD-STAGE EGE-1 IKE DOMAIN	EXTRACELLUAR MODULAR	PROTEIN, SURFACE 2 ANTIGEN.	MALARIA VACCINE COMPONENT,	SURFACE PROTEIN	SURFACE PROTEIN MEROZOITE	SURFACE ANTIGEN 1, MAJOR	BLOOD-STAGE EGF-LIKE DOMAIN,	EXTRACELLULAR, MODULAR	PROTEIN, SURFACE 2 ANTIGEN,	MALARIA VACCINE COMPONENT,	SURFACE PROTEIN	APOPTOSIS TRAIL; DR5; LIGAND	RECEPTOR COMPLEX, TRIMERIC	JELLY-ROLL, TNF-R 2	SUPERFAMILY, APOPTOSIS	MEMBRANE PROTEIN NMR,	THROMBIN, EGF MODULE,	ANTICOAGULANT,	GLYCOSYLATION	MEMBRANE PROTEIN NMR, THROMBIN, EGF MODULE.
Coumpound		MEROZOITE SURFACE	'W' ATTAIN 'I ATTAIN 'I			MEROZOITE SURFACE	PROTEIN 1; CHAIN: A;					MEROZOITE SURFACE	PROTEIN 1; CHAIN: A;						TNF-RELATED APOPTOSIS	INDUCING LIGAND; CHAIN: B;	DEATH RECEPTOR 5; CHAIN:	Ą;	THROMBOMODULIN; CHAIN:	A;			THROMBOMODULIN; CHAIN: A:
SEQFOL D score																											
PMF score		0.41				-0.14						0.53							-0.13				0.78				0.15
Verify		-0.11				0.08						60.0							0.30				0.76				0.30
Psi Blast		6.8e-17				5.1e-09						5.1e-21							1.4e-08				5.1e-14				5.1c-18
END AA		435				481						128							733				252				406
STAR T AA		364				403					-	45							631				181				321
CHAI N ID		A				Ą						A							4				Ą				∢
PDB U		lcej				lcej	-					Icej							1d4v				1dqb				qbp1
SEQ D NO:		1376				1376						1376							1376				1376				1376

PDB annotation	ANTICOAGULANT, GLYCOSYLATION	MEMBRANE PROTEIN NMR, THROMBIN, EGF MODULE, ANTICOAGULANT, GLYCOSYLATION	MEMBRANE PROTEIN NMR, THROMBIN, EGF MODULE, ANTICOAGULANT, GLYCOSYLATION	COAGULATION FACTOR CRYSTAL STRUCTURE, EPIDERMAL GROWTH FACTOR, EGF, 2 CALCIUM-	BINDING, EGF-LIKE DOMAIN, STRUCTURE AND FUNCTION, 3	HUMAN FACTOR IX, COAGULATION FACTOR	BLOOD CLOTTING FACTOR VII,	BLOOD COAGOLATION, EGF-LIKE DOMAIN, BLOOD 2 CLOTTING	BLOOD CLOTTING PROTEIN	INHIBITOR COMPLEX, COAGII.ATION COFACTOR.	PROTEASE	BLOOD CLOTTING PROTEIN INHIBITOR COMPLEX	COAGULATION COFACTOR,	BLOOD CLOTTING PROTEIN	INHIBITOR COMPLEX,	COAGULATION COFACTOR,	BLOOD CLOTTING PROTEIN	INHIBITOR COMPLEX,
Coumpound		THROMBOMODULIN; CHAIN: A;	THROMBOMODULIN; CHAIN: A;	FACTOR IX; CHAIN: B, C;			BLOOD COAGULATION	FACTOR VII; CHAIN: A;	COAGULATION FACTOR XA;	CHAIN: A; COAGULATION FACTOR XA: CHAIN: 1;		COAGULATION FACTOR XA;	FACTOR XA; CHAIN: L;	COAGULATION FACTOR XA;	CHAIN: A; COAGULATION	FACTOR XA; CHAIN: L;	COAGULATION FACTOR XA;	CHAIN: A; COAGULATION
SEQFOL D score																		
PMF		0.00	0.21	0.23			0.04		0.23			0.42		0.25			0.94	
Verify score		-0.07	0.25	-0.14		·	60.0		99.0			72.0		-0.13			0.08	
Psi Blast		5.1e-10	5.1e-18	3.4e-07			5.1e-07		1.2e-12			3.4e-20		1.7e-17			1.4e-15	
END		485	131	433			433		254			335		374			445	
STAR T AA		400	44	403			403		216			284		327			407	
CHAI N ID		¥	¥	Д			4		L	_		7	_ 	L	_		ı	
PDB UD		1dqb	1dqb	1edm			1f7e		1fjs			1fjs		1fjs			1fjs	
SEQ NO NO		1376	1376	1376			1376		1376			1376		1376			1376	

PDB annotation	COAGULATION COFACTOR, PROTEASE	BLOOD CLOTTING PROTEIN INHIBITOR COMPLEX,	COAGULATION COFACTOR, PROTEASE										COMPLEX (PROTEASE/INHIBITOR)	RTAP; GLYCOPROTEIN, SERINE	PROTEASE, PLASMA, BLOOD	COAGULATION, 2 COMPLEX (PROTEASE/INHIBITOR)	COMPLEX (PROTEASE/INHIBITOR)	RTAP; GLYCOPROTEIN, SERINE	PROTEASE, PLASMA, BLOOD	COAGULATION, 2 COMPLEX	(PROTEASE/INHIBITOR)	COMPLEX (PROTEASE/INHIBITOR)	RTAP; GLYCOPROTEIN, SERINE	PROTEASE, PLASMA, BLOOD	COAGULATION, 2 COMPLEX	(PROTEASE/INHIBITOR)	GLYCOPROTEIN GLYCOPROTEIN
Coumpound	FACTOR XA; CHAIN: L;	COAGULATION FACTOR XA; CHAIN: A; COAGULATION	FACTOR XA; CHAIN: L;	COAGULATION FACTOR	FACTOR XA 1HCG 3	COAGULATION FACTOR	BLOOD COAGULATION FACTOR XA 1HCG 3	COAGULATION FACTOR	BLOOD COAGULATION FACTOR XA 1HCG 3	COAGULATION FACTOR	BLOOD COAGULATION	FACTOR XA THCG 3	FACTOR XA; CHAIN: H, L;	ANTICOAGULANT PEPTIDE;	CHAIN: I;		FACTOR XA; CHAIN: H, L;	ANTICOAGULANT PEPTIDE;	CHAIN: I;			FACTOR XA; CHAIN: H, L;	ANTICOAGULANT PEPTIDE;	CHAIN: I;			LAMININ; CHAIN: NULL;
SEQFOL D score																											
PMF		0.59		0.46		0.33		0.89		0.95			0.31				0.82					0.34					-0.11
Verify score		0.83		0.50		0.34		0.45		0.45			0.0]				-0.06					99.0					0.47
Psi Blast		1.7e-12		3.4e-12		1.2e-18		8.5e-15		5.le-12			3.4e-18				6.8e-15					5.1e-12					6.8e-14
END		06		254		334		445		8			374				445					8					322
STAR T AA		49		217		286		407	_	49			327	_	_		407					49					135
CHAI N ID		7		В		В		В		В			7				ı					ı					
PDB ID		1fjs		1hcg		1hcg		lhcg		1hcg			- Naig				lkig					1kig					1klo
SEQ NO:		1376		1376		1376		1376		1376			1376				1376					1376					1376

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PDB annotation	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; BLOOD COAGULATION, SERINE
Coumpound	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	FACTOR IXA; CHAIN: C, L.; D- PHE-PRO-ARG; CHAIN: I;	FACTOR IXA; CHAIN: C, L.; D- PHE-PRO-ARG; CHAIN: I;	FACTOR IXA; CHAIN: C, L.; D- PHE-PRO-ARG; CHAIN: 1;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L;
SEQFOL D score							
PMF score	-0.18	0.00	0.01	0.23	0.89	0.37	0.72
Verify score	0.16	0.38	0.04	0.02	0.21	0.28	0.18
Psi Blast	1.7e-20	8.5e-10	1.7e-14	3.46-27	8.5e-26	1.4e-22	8.5e-16
END AA	433	787	254	427	152	226	252
STAR T AA	286	979	121	289	41	131	177
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वा श्वव	_	1klo	1pfx	1pfx	1pfx	1qfk	1qfk
SEQ NO:	1376	1376	1376	1376	1376	1376	1376

PDB annotation	PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE
Coumpound	COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN; H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRUPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;
SEQFOL D score				,		
PMF score		0.22	0.29	0.99	0.92	0.52
Verify score		-0.11	-0.01	0.22	0.12	-0.29
Psi Blast		3.4e-26	1.5e-21	le-18	1.7e-24	6.8e-23
END		389	419	445	141	189
STAR T AA		286	326	367	48	68
CHA1 N ID		J.	니	1	٦ ا	ħ
PDB ID		1qfk	Iqfk	1qfk	1qfk	1qfk
SEQ NO:		1376	1376	1376	1376	1376

PDB annotation	MEMBRANE ADHESION SHORT CONSENSUS REPEAT, SUSHI, COMPLEMENT CONTROL PROTEIN, 2 N-GL YCOSYLATION, MULTI- DOMAIN, MEMBRANE ADHESION	COAGULATION FACTOR SERINE PROTEINASE, BLOOD COAGULATION, COAGULATION FACTOR	COAGULATION FACTOR SERINE PROTEINASE, BLOOD COAGULATION, COAGULATION FACTOR	COAGULATION FACTOR SERINE PROTEINASE, BLOOD COAGULATION, COAGULATION FACTOR	COAGULATION FACTOR SERINE PROTEINASE, BLOOD COAGULATION, COAGULATION FACTOR	SPERMADHESIN ACIDIC SEMINÁL PROTEIN; SPERMADHESIN, BOVINE SEMINAL PLASMA PROTEIN, ACIDIC 2 SEMINAL FLUID PROTEIN, ASFP, CUB DOMAIN, X-RAY CRYSTAL 3 STRUCTURE, GROWTH FACTOR	COMPLEX (SEMINAL PLASMA PROTEIN/SPP) SEMINAL PLASMA PROTEINS, SPERMADHESINS, CUB DOMAIN 2 ARCHITECTURE, COMPLEX (SEMINAL PLASMA PROTEIN/SPP)
Coumpound	HUMAN BETA2- GLYCOPROTEIN I; CHAIN: A;	COAGULATION FACTOR IX; CHAIN: A; COAGULATION FACTOR IX; CHAIN: B;	COAGULATION FACTOR IX; CHAIN: A; COAGULATION FACTOR IX; CHAIN: B;	COAGULATION FACTOR IX; CHAIN: A; COAGULATION FACTOR IX; CHAIN: B;	COAGULATION FACTOR IX; CHAIN: A; COAGULATION FACTOR IX; CHAIN: B;	ASFP; CHAIN: NULL;	MAJOR SEMINAL PLASMA GLYCOPROTEIN PSP-I; CHAIN: A; MAJOR SEMINAL PLASMA GLYCOPROTEIN PSP-II; CHAIN: B
SEQFOL D score							
PMF score	-0.18	0.35	-0.01	0.94	-0.15	0.48	0.65
Verify	0.02	0.24	0.29	0.13	0.67	0.64	0.37
Psi Blast	1.7e-46	16-13	3.4e-19	3.4e-11	8.5e-12	3.4e-21	3.4e-22
END AA	444	228	339	445	102	918	922
STAR T AA	41	175	285	407	49	805	809
CHAI N ID	¥	Д	æ	ga	В		В
PDB ID	1qub	₽.	1rfn	1rfb	1rfi	lsfp	Іѕър
SEQ NO:	1376	1376	1376	1376	1376	1376	1376

PDB annotation	PLASMINOGEN ACTIVATION	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	KINASE KINASE, SIGNAL TRANSDUCTION, CALCIUM/CALMODULIN	KINASE KINASE, SIGNAL TRANSDUCTION,
Coumpound	T-PLASMINOGEN ACTIVATOR FI-G; ITPG 7 CHAIN: NULL; ITPG 8	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULÁTION FACTOR XA; CHAIN: L, C;	CALCIUM/CALMODULIN- DEPENDENT PROTEIN KINASE; CHAIN: NULL;	CALCIUM/CALMODULIN- DEPENDENT PROTEIN KINASE;
SEQFOL D score								109.19
PMF score	0.04	0.59	0.43	69.0	0.40	0.55	0.71	
Verify score	0.05	0.09 ,	-0.01	0.25	0.28	0.01	-0.04	
Psi Blast	1.5e-21	1.7e-15	1.76-15	5.1e-20	3.4e-19	3.4e-22	5.1e-62	5.1e-62
END AA	158	230	254	380	444	145	530	534
STAR T AA	89	131	182	286	367	48	205	236
CBAI N ID		ı	T	٦	ı	7		
PDB ID	Itpg	lxka	1xka	lxka	lxka	lxka	1a06	1a06
SEQ No. 10 SEQ	1376	1376	1376	1376	1376	1376	1381	1381

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PDB annotation	CALCIUM/CALMODULIN	TRANSFERASE TRANSFERASE, SERINE/THREONINE-PROTEIN KINASE, CASEIN KINASE, 2 SER/THR KINASE	COMPLEX (KINASE/INHIBITOR) CDK 6; P19INK 4D; CYCLIN DEPENDENT KINASE CYCLIN	DEPENDENT KINASE, NHBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, COMPLEX (KINASE/INHIBITOR) HEADER HELIX	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEINKINASE) INHIBITOR PROTEIN CYCI IN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX CINHIRITOR PROTEIN/K INASE)	PHOSPHOTRANSFERASE					
Coumpound	CHAIN: NULL;	PROTEIN KINASE CKZ/ALPHA- SUBUNT; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A, C; CYCLIN- DEPENDENT KINASE	INHIBITOR; CHAIN: B, D;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;		CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: 8.	S	CASEIN KINASE-1; 1CSN 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP-	DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3	(CATALYTIC SUBUNIT) 1CTP 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP-	DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3
SEQFOL D score		84.57			92.79					154.37				
PMF score			00.1	-			0.1		0.74				1.00	
Verify score			0.21				0.40		90.0				0.41	
Psi Blast		6.8e-40	5.1e-41		1.2e-46		1.2e-46		6.8e-48	3.4e-71			3.4e-71	
END		550	485		495		485		469	524			498	
STAR T AA		194	204		198		199		203	169	-		196	
CHAI N ID			Ą		A		∢			ம			ம	
PDB UD		1a60	1bi8		161x	•	1blx		1csn	lctp			lctp	
SEQ 10	Ë	1381	1381		1381		1381		1381	1381			1381	

PDB annotation		PROTEIN KINASE CDK2; TRANSFERASE,	SERINE/THREONINE PROTEIN	KINASE, ATP-BINDING, 2 CELL	CYCLE, CELL DIVISION, MITOSIS, PHOSPHORYLATION	PROTEIN KINASE CDK2;	TRANSFERASE,	KINASE ATP-BINDING 2 CELL	CYCLE, CELL DIVISION, MITOSIS.	PHOSPHORYLATION	SERINE/THREONINE-PROTEIN	KINASE CSBP, RK, P38; PROTEIN	SER/THR-KINASE,	SERINE/THREONINE-PROTEIN	SERINE/THREONINE PROTEIN	KINASE CSBP. RK. P38: PROTEIN	SER/THR-KINASE,	SERINE/THREONINE-PROTEIN	KINASE	TRANSFERASE INK3;	TRANSFERASE, INK3 MAP KINASE,	SERINE/THREONINE PROTEIN 2	TRANSFERASE INK 3.	TRANSFERASE, JNK3 MAP KINASE,	SERINE/THREONINE PROTEIN 2	KINASE	KINASE KINASE, TWITCHIN,	INTRASTERIC REGULATION	KINASE KINASE, TWITCHIN,
Coumpound	(CATALYTIC SUBUNIT) 1CTP 4	HUMAN CYCLIN-DEPENDENT KINASE 2; CHAIN: NULL;				HUMAN CYCLIN-DEPENDENT	KINASE 2; CHAIN: NULL;				P38 MAP KINASE; CHAIN:	NULL;			P38 MAP KINASE: CHAIN:	NULL:				C-JUN N-TERMINAL KINASE;	CHAIN: NULL;		C-IIIN N-TERMINAL KINASE:	CHAIN: NULL;			TWITCHIN; CHAIN: A, B;		TWITCHIN; CHAIN: A, B;
SEQFOL D score						115.78					92.87			·						112.39							127.80		
PMF score		1.00													0.88	}							1 00	20.1					1.00
Verify score		0.39												-	0.01	:							0.21	1					0.52
Psi Blast		1.7e-53				1.7e-53					3.4e-40				3.4e-40	?				1.7e-46			1 76-46	2			1.7e-68		1.7e-68
END		495				499					555				475	:				577			512	1			570		493
STAR T AA		202				202					183				203	}				185			203	}			170		205
CHAI																											∢		A
808 CI		1hcl				1hcl					lian				1ian					1년			i <u>ë</u>	<u></u>			1kob		1kob
SEQ ID NO:		1381				1381					1381				1381					1381			1381				1381		1381

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PDB annotation	INTRASTERIC REGULATION	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE, MAP 2, ERK2; TRANSFERASE,	SERINE/THREONINE-PROTEIN KINASE, MAP KINASE, 2 ERK2	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE MAP	2, ERK2; TRANSFERASE, SERINE/THREONINE-PROTEIN	KINASE, MAP KINASE, 2 ERK2	COMPLEY AND AT	PEPTIDE/RECEPTOR) HLA-A2	HEAVY CHAIN; CLASS I MHC, T-	CELL RECEPTOR, VIRAL PEPTIDE, 2	COMPLEX (MHC/VIRAL	PEF 11DE/RECEPTOR	COMPLEX (MHC/VIRAL	PEPTIDE/RECEPTOR) HLA-A2	HEAVY CHAIN; CLASS I MHC, I-	CELL RECEPTOR, VIRAL PEPTIDE, 2	COMPLEX (MHC/VIRAL	COMPLEX (MHC/VTRAL	PEPTIDE/RECEPTOR) HLA A2	HEAVY CHAIN; COMPLEX	(MHC/VIRAL PEPTIDE/RECEPTOR)			COMPLEX (MHC/VIRAL	PEPTIDE/RECEPTOR) HLA A2	HEAVY CHAIN; COMPLEX	(MHC/VIRAL PEPTIDE/RECEPTOR)
Coumpound		EXTRACELLULAR REGULATED KINASE 2; CHAIN: NULL;		EXTRACELLULAR REGIII ATED KINASE 2:	CHAIN: NULL;		HI A A 0201: CHARL A: BETA 3	MICROGLOBULIN; CHAIN: B;	TAX PEPTIDE; CHAIN: C; T	CELL RECEPTOR ALPHA;	CHAIN: D; T CELL RECEPTOR	BEIA; CHAIN: E;	HLA-A 0201; CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	TAX PEPTIDE; CHAIN: C; T	CELL RECEPTOR ALPHA;	CHAIN: D; T CELL RECEPTOR	HI A-A 0201: CHAIN: A: BETA-2	MICROGLOBULIN; CHAIN; B;	TAX PEPTIDE; CHAIN: C; T	CELL RECEPTOR ALPHA;	CHAIN: D; T CELL RECEPTOR	BETA; CHAIN: E;	HLA-A 0201; CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	TAX PEPTIDE; CHAIN: C; T	CELL RECEPTOR ALPHA;
SEQFOL D score				79.86									128.38											143.49			
PMF score		1.00					5	3										00									
Verify score	٠	0.54					0.20											0.48	2								
Psi Blast		8.5e-53		8.5e-53			12 070	1000					9.6e-54					3.2e-66						3.2e-66			
END		498		295			210	21					210					210) 					210			
STAR TAA		198		213			3	1					25					52	}					52			
CHAI N ID							L	1					ш					μ	ı.					田			
PDB U		3erk		3erk			1007						1ao7					1hd2						1bd2			_
SEQ No.		1381		1381			1204	5					1384					1384						1384			

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PDB annotation		RECEPTOR T CELL RECEPTOR IBEC 14	RECEPTOR T CELL RECEPTOR 1BEC 14	MMUNE SYSTEM HLA-DRI, DRA; HLA-DRI, DRBI 0101; TCR HA1.7 ALPHA CHAIN; TCR HÁ1.7 BETA CHAIN; PROTEIN-PROTEIN COMPLEX, IMMUNOGLOBULIN FOLD	RECEPTOR TCR; T-CELL, RECEPTOR, TRANSMEMBRANE, GLYCOPROTEIN, SIGNAL	RECEPTOR TCR; T-CELL, RECEPTOR, TRANSMEMBRANE, GLYCOPROTEIN, SIGNAL	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (NITCLEAR
Coumpound	CHAIN: D; T CELL RECEPTOR BETA; CHAIN: E;	14.3.D T CELL ANTIGEN RECEPTOR; IBEC 5 CHAIN: NULL; IBEC 6	14.3.D T CELL ANTIGEN RECEPTOR; IBEC 5 CHAIN: NULL; IBEC 6	HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, DR CHAIN: A; HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, DR-1 CHAIN: B; HEMAGGLUTININ HAI PEPTIDE CHAIN; CHAIN: C; T- CELL RECEPTOR ALPHA CHAIN; CHAIN: D; T-CELL RECEPTOR BETA CHAIN; CHAIN: E;	ALPHA, BETA T-CELL RECEPTOR CHAIN: A, B;	ALPHA, BETA T-CELL RECEPTOR CHAIN: A, B;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	112 RNA HAIRPIN IV. CHAIN: O
SEQFOL D score		130.56				131.76		
PMF score			1.00	00'1	1.00		-0.11	-0.01
Verify score			0.49	0.25	0.43		0.04	0.43
Psi Blast		6.4e-66	6.4e-66		9.6e-64	9.6e-64	3.2e-17	3.4e-21
END		210	210	210	210	210	309	156
STAR T AA		52	53	53	20	51	21	26
CHAI N ID				п	В	В	∢	▼
PDB CD		1bec	1 bec	lfyt	1tcr	Itcr	la4y	la9n
S e S		1384	1384	1384	1384	1384	1388	1388

PDB annotation	PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP, RIBONUCLEOPROTEIN	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL
Coumpound	R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	AXONIN-1; CHAIN: A;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;
SEQFOL D score										
PMF score		0.19	0.65	0.51	-0.08	0.06	0.89	0.07	0.77	0.89
Verify score		0.28	0.48	0.51	0.41	0.42	0.67	-0.15	0.50	0.27
Psi Blast		4.8e-06	1.5e-20	1.3e-05	1.2e-21	4.8e-06	6.8e-20	0.00034	6.4e-27	1.4e-12
END		155	121	106	951	155	121	280	194	128
STAR T AA		46	4	24	7 9	94	4	11	19	4
CHAI N ID		A	A	၁	၁	၁	ပ	∢	¥	4
PDB ID		1a9n	1a9n	1a9n	1a9n	la9n	1a9n	1cs6	140b	140b
SEQ SO SO SO SO SO SO SO SO SO SO SO SO SO		1388	1388	1388	1388	1388	1388	1388	1388	1388

Coumpound PDB annotation	ADHESION	INTERNALIN B; CHAIN: A; CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	INTERNALIN B; CHAIN: A; CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	RAB TRANSFERASE CRYSTAL	GERANYLGERANYLTRANSFE STRUCTURE, RAB DA SE AI DHA STRINIT. CERANYLOFE ANYLTRANSFERASF	YLTRANSFE	RASE BETA SUBUNIT; CHAIN: SUBUNIT, BETA SUBUNIT B. D.	RAB TRANSFERASE CRYSTAL	GERANYLGERANYLTRANSFE STRUCTURE, RAB	RASE ALPHA SUBUNIT; GERANYLGERANYLTRANSFERASE,	CHAIN: A, C; RAB 2.0 A 2 RESOLUTION, N-	GERANYLGERANYLTRANSFE FORMYLMETHIONINE, ALPHA	RASE BETA SUBUNIT; CHAIN: SUBUNIT, BETA SUBUNIT	\dagger	JTER ARM DYNEIN; CHAIN:	A; RICH REPEAT, BETA-BETA-ALPHA	CYLINDER, DYNEIN, 2	NUCLEAR RNA EXPORT RNA BINDING PROTEIN TAP (NFX1);	FACTOR I; CHAIN: A, B; RIBONUCLEOPROTEIN (RNP,RBD	OR RRM) AND LEUCINE-RICH-	NUCLEAR RNA EXPORT RNA BINDING PROTEIN TAP (NFX1);	FACTOR 1; CHAIN: A, B; RIBONUCLEOPROTEIN (RNP, RBD	OR RRM) AND LEUCINE-RICH-	NGF EAT & (LINIV)
SEQFOL D score																								
PMF		0.43	0.04	0.90				96.0							-0.02			0.40			0.10			
Verify score		0.28	-0.05	0.27				0.59							0.08			-0.05			-0.06			
Psi Blast		1.4e-25	3.2e-25	3.2e-11				1.6e-12							6.4e-13			3.2e-06			4.8e-07			
END		216	236	127				170							236			103			171			
STAR T AA		63	87	21				46							103			41			8			
CHAI N ID		∢	4	A				A							∢			Ą			۷.			
PDB ID		1d0b	1d0b	148				1dce							1489			1fo1			1601			
SEQ NO:		1388	1388	1388				1388							1388			 1388			1388			

SEQ	PDB	CHAI	STAR	END	Psi Blast	Verify	PMF	SEQFOL	Coumpound	PDB annotation
AŠ	A	A	TAA	Ψ		score	score	D score		
									FACTOR 1; CHAIN: A, B;	RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)
1388	1fqv	4	1	173	1.4e-09	0.29	-0.08		SKP2; CHAIN: A, C, E, G, I, K, M, O: SKP1: CHAIN: B. D. F. H. J. L.	LIGASE CYCLIN A/CDK2- ASSOCIATED PROTEIN P45: CYCLIN
									N, P;	A/CDK2-ASSOCIATED PROTEIN P19; SKP1 SKP2 F-ROX 1.RR LEUCINE.
										RICH REPEAT, SCF, UBIQUITIN, 2 E3, UBIOUITIN PROTEIN LIGASE
1388	1fqv	Ą	20	213	1.6e-14	0.12	0.10		SKP2; CHAIN: A, C, E, G, I, K, M,	LIGASE CYCLIN A/CDK2-
		`							O; SKP1; CHAIN: B, D, F, H, J, L,	ASSOCIATED PROTEIN P45; CYCLIN
									Ž,	A/CDK2-ASSOCIATED PROTEIN P19; SKP1. SKP2. F-BOX. I.RR. LEUCINE-
										RICH REPEAT, SCF, UBIQUITIN, 2 F3. TRICHITIN PROTEIN I 164 SF
1388	1fqv	٧	22	298	4.8e-11	0.08	-0.15		SKP2; CHAIN: A, C, E, G, I, K, M,	LIGASE CYCLIN A/CDK2-
									O; SKP1; CHAIN: B, D, F, H, J, L,	ASSOCIATED PROTEIN P45; CYCLIN
									ŗ.	A/CDK2-ASSOCIATED PROTEIN P19;
										SKP1, SKP2, F-BOX, LRR, LEUCINE-
										RICH REPEAT, SCF, UBIQUITIN, 2
										E3, UBIQUITIN PROTEIN LIGASE
1388	1fs2	٧	=	128	3.4e-12	0.21	60'0		SKP2; CHAIN: A, C; SKP1;	LIGASE CYCLIN A/CDK2-
									CHAIN: B, D;	ASSOCIATED P45; CYCLIN A/CDK2-
										ASSOCIATED P19; SKP1, SKP2, F-
										BOX, LRRS, LEUCINE-RICH
										REPEATS, SCF, 2 UBIQUITIN, E3,
										UBIQUITIN PROTEIN LIGASE
1388	1fs2	Ą	20	213	1.6e-14	0.04	0.03		SKP2; CHAIN: A, C; SKP1;	LIGASE CYCLIN A/CDK2-
								_	CHAIN: B, D;	ASSOCIATED P45; CYCLIN A/CDK2-
										ASSOCIATED P19; SKP1, SKP2, F-
										BOX, LRRS, LEUCINE-RICH
										REPEATS, SCF, 2 UBIQUITIN, E3,
										UBIQUITIN PROTEIN LIGASE
1388	2bnh		5	131	1.7e-19	0.07	-0.12		RIBONUCLEASE INHIBITOR;	ACETYLATION RNASE INHIBITOR,

PDB annotation	RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	GETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	GLYCOPROTEIN GLYCOPROTEIN	MUSCLE PROTEIN CTNC; CARDIAC, MUSCLE PROTEIN, REGULATORY, CALCIUM BINDING	L; CALCIUM-BINDING PROTEIN CALMODULIN CERIUM TRIC- DOMAIN, RESIDUES 1 - 75; CERIUM- LOADED, CALCIUM-BINDING PROTEIN	NG NG	E)	(E)	STRUCTURAL PROTEIN HELIX- TURN-HELIX	METAL TRANSPORT CALMODULIN,
Coumpound	CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	LAMININ; CHAIN: NULL;	TROPONIN C; CHAIN: NULL;	CALMODULIN; CHAIN: NULL;	CALCIUM-BINDING PROTEIN CALMODULIN COMPLEXED WITH CALMODULIN-BINDING DOMAIN OF 1CDM 3 CALMODULIN-DEPENDENT PROTEIN KINASE II 1CDM 4	CALCIUM-BINDING PROTEIN CALMODULIN (VERTEBRATE) ICLL 3	CALCIUM-BINDING PROTEIN CALMODULIN (VERTEBRATE) ICLL 3	CARDIAC TROPONIN C; CHAIN: A;	CALMODULIN; CHAIN: A;
SEQFOL D score							53.74			
PMF		-0.15	-0.20	0.01	0.48	0.16		0.11	0.12	0.23
Verify score		0.06	0.05	-0.36	0.21	-0.32		-0.37	-0.54	-0.22
Psi Blast		3.2e-20	1.6e-13	3.2e-23	3.2e-22	4.8e-33	3.2e-38	3.2e-38	1.6e-21	1.6e-35
END		439	643	114	19	117	132	117	117	117
STAR T AA		74	476	01	2	7	_	7	22	2
CHAI N ID						4			Ą	⋖
PDB ID		2bnh	1klo	laj4	1ak8	Icdm	lcll	101	1dt	lexr
SEQ NO.		1388	1389	1392	1392	1392	1392	1392	1392	1392

PDB annotation	CALCIUM-REGULATED MUSCLE CONTRACTION MUSCLE CONTRACTION, CALCIUM- BINDING, TROPONIN, E-F HAND, 2 OPEN CONFORMATION REGULATORY DOMAIN, CALCIUM- REGULATED 3 MUSCLE CONTRACTION	CALCIUM-REGULATED MUSCLE CONTRACTION MUSCLE CONTRACTION, CALCIUM- BINDING, TROPONIN, E-F HAND, 2 OPEN CONFORMATION REGULATORY DOMAIN, CALCIUM- REGULATED 3 MUSCLE CONTRACTION	CALCIUM-BINDING PROTEIN EF- HAND 1TNX 14			CALMODULIN, CALCTUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCTUM-BINDING PROTEINPEPTIDE)	CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEINPEPTIDE)	TRANSFERASE RECEPTOR TYROSINE KINASE, PROTEIN INTERACTION MODULE, 2
Coumpound	TROPONIN C; CHAIN: NULL;	TROPONIN C; CHAIN: NULL;	TROPONIN C; 1TNX 4 CHAIN: NULL; 1TNX 5	CONTRACTILE SYSTEM PROTEIN TROPONIN C 1TOP 3	CONTRACTILE SYSTEM PROTEIN TROPONIN C 1TOP 3	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	EPHA4 RECEPTOR TYROSINE KINASE; CHAIN: A;
SEQFOL D score	56.30			51.47		51.68		
PMF		0.11	0.33		0.36		0.27	1.00
Verify score		-0.35	-0.32		-0.03	-	-0.42	1.07
Psi Blast	3.2e-28	3.2e-28	8e-24	4.8e-28	4.8e-28	1.4e-37	1.4e-37	1.7e-24
END AA	139	E	Ė	141	=======================================	135	117	1000
STAR T AA	П	2	2	-	2	-	2	934
CHAI N 1D		·				V	A	A
PDB ID	Itef	ltcf	Itnx	1top	1top	lvrk	lvrk	150x
SEQ ID NO:	1392	1392	1392	1392	1392	1392	1392	1396

PDB annotation	DIMERIZATION DOMAIN, TRANSFERASE	E, F, SIGNAL TRANSDUCTION SAM DOMAIN, EPH RECEPTOR, SIGNAL TRANSDUCTION, OLIGOMER	RECEPTOR RECEPTOR, SIGNAL TRANSDUCER OF IL-6 TYPE CYTOKINES, THIRD 2 N-TERMINAL DOMAIN, TRANSMEMBRANE, GLYCOPROTEIN	IN: HORMONE/GROWTH FACTOR HORMONE, RECEPTOR, HORMONE/GROWTH FACTOR	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	; TRANSFERASE CSK; PROTEIN KINASE, C-TERMINAL SRC KINASE, PHOSPHORYLATION, 2 STAUROSPORINE, TRANSFERASE			MEMBRANE PROTEIN BETA SANDWICH, CYTOKINE RECEPTOR, FN3 DOMAIN	CYTOKINE G-CSF; G-CSF-R; CLASSI
Coumpound		EPHB2; CHAIN: A, B, C, D, E, F, G, H;	GP130; CHAIN: NULL;	GROWTH HORMONE; CHAIN: A; PROLACTIN RECEPTOR; CHAIN: B;	TITIN; CHAIN: NULL;	C-TERMINAL SRC KINASE; CHAIN: A;	C-TERMINAL SRC KINASE; CHAIN: A;	C-TERMINAL SRC KINASE; CHAIN: A;	CYTOKINE RECEPTOR COMMON BETA CHAIN; CHAIN: A;	GRANULOCYTE COLONY-
SEQFOL D score						169.44				,
PMF score		1.00	0.46	0.01	0.60		1.00	1.00	1.00	0.07
Verify		0.92	0.26	-0.06	0.20		0.83	0.64	0.46	0.40
Psi Blast		8.5e-27	7.5e-22	1.5e-25	4.5e-18	3e-93	1.4e-90	3e-93	6e-19	4.5e-35
END AA		666	537	531	536	668	268	868	531	524
STAR T AA		934	431	328	438	627	628	629	437	328
CHAI N ID		V		В		V	V	¥	¥	В
PDB ID		1b4f	15j8	1bp3	1bpv	1byg	1byg	1byg	1c8p	1cd9
SEQ ID NO:		1396	1396	1396	1396	1396	1396	1396	1396	1396

PDB annotation	TRANSDUCTION	BINDING PROTEIN BINDING PROTEIN, CYTOKINE RECEPTOR	CYTOKINE EBP; ERYTHROPOIETIN	RECEPTOR, SIGNAL	TRANSDUCTION, CYTOKINE 2 RECEPTOR CLASS 1	HORMONE/GROWTH FACTOR/HORMONE RECEPTOR 4-	HELICAL BUNDLE, ALPHA	HELICAL BUNDLE, TERNARY	COMPLEX, FN 2 III DOMAINS, BETA	SHEET DOMAINS, CYTOKINE-	PHOSPHOTRANSFERASE FGFRIK.	FIBROBLAST GROWTH FACTOR	RECEPTOR 1; TRANSFERASE,	TYROSINE-PROTEIN KINASE, ATP-	BINDING, 2 PHOSPHOR YLATION,	RECEPTOR,	PHOSPHOTRANSFERASE		FIBROBLAST GROWTH FACTOR	RECEPTOR I; TRANSFERASE,	TYROSINE-PROTEIN KINASE, ATP-	BINDING, 2 PHOSPHORYLATION,	RECEPTOR,	+		RECEPTOR 1: TRANSFERASE.	TYROSINE-PROTEIN KINASE, ATP-	BINDING, 2 PHOSPHORYLATION,
Coumpound	CHAIN: B, D;	GRANULOCYTE COLONY- STIMULATING FACTOR RECEPTOR; CHAIN: NULL;	ERYTHROPOIETIN RECEPTOR;	CHAIN: A, B;		PLACENTAL LACTOGEN; CHAIN: A: PROLACTIN	RECEPTOR; CHAIN: B, C;				FGF RECEPTOR 1: CHAIN: A. B:						,	FGF RECEPTOR 1; CHAIN: A, B;					,	EGE BECEBTOB 1. CHARLA B.	TOT MECEL TON 1, CHAINT A, E,			
SEQFOL D score	:										179.56													107.33	77:701			
PMF		0.63	0.28			0.15		١.										1.00										
Verify score		0.32	-0.12			-0.05												0.91										
Psi Blast		6e-19	4.5e-22			4.5e-13					0							0							>			
END AA		531	531			531					900						_	895						000	666			
STAR T AA		454	338			408					617							621						717	r 5			
CHAI N ID			Ą			ပ					\ \							Ą		_				٥	3			
PDB ID		1cto	len			1f6f					lfek	b						1fgk						1601	11.En			
SEQ NO:		1396	1396			1396					1396							1396						1206	2			

PDB annotation	RECEPTOR, PHOSPHOTRANSFERASE	PHOSPHOTRANSFERASE FGFRIK,	RECEPTOR 1; TRANSFERASE,	TYROSINE-PROTEIN KINASE, ATP-BINDING, 2 PHOSPHORYL ATTON	RECEPTOR, PHOSPHOTRANSFERASE	PHOSPHOTRANSFERASE C-SRC,	P60-SRC; SRC, TYROSINE KINASE,	PHOSPHORY LATION, SH2, SH3, Z PHOSPHOTYROSINE, PROTO-	ONCOGENE, PHOSPHOTRANSFERASE				CELL ADHESION PROTEIN RGD, EXTRACELLULAR MATRIX IFNF 18	TRANSFERASE P150, C-ABL;	KINASE, KINASE INHIBITOR, STI-	COMPLEX	(TRANSFERASE/SUBSTRATE)	TO ANSDITCTION	PHOSPHOTRANSFERASE, 2	COMPLEX (KINASE/PEPTIDE	SUBSTRATE/ATP ANALOG),	ENZYME, 3 COMPLEX	(TRANSFERASE/SUBSTRATE)	COMPLEX
Coumpound		FGF RECEPTOR 1; CHAIN: A, B;				TYROSINE-PROTEIN KINASE	SRC; CHAIN: NULL;			CELL ADHESION PROTEIN	FIBRONECTIN CELL-	10 IFNA 3	FIBRONECTIN; 1FNF 6 CHAIN: NULL; 1FNF 7	PROTO-ONCOGENE	TYROSINE-PROTEIN KINASE	INSULIN RECEPTOR; CHAIN: A;	PEPTIDE SUBSTRATE; CHAIN: D.	a Î						NSULIN RECEPTOR; CHAIN: A;
SEQFOL D score																188.00								
PMF score		1.00				1.00				0.63			-0.05	1.00										1.00
Verify score		0.87				0.88				0.39			0.08	0.71										0.81
Psi Blast		0				0				1.2e-13			3e-26	0		0								0
END AA		895				903			ŕ	524			531	897		910								910
STAR T AA		620				615				454			322	623		623								626
CHAI N ID		В	_											Ą		٨								Ą
PDB ID		1fgk				1fmk				Ifna			1fhf	1fpu		1ir3								lir3
SEQ ID NO:		1396				1396				1396			1396	1396		1396								1396

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PDB annotation	(TRANSFERASE/SUBSTRATE) TYROSINE KINASE, SIGNAL TRANSDUCTION, PHOSPHOTRANSFERASE, 2 COMPLEX (KINASE/PEPTIDE SUBSTRATE/ATP ANALOG), ENZYME, 3 COMPLEX (TRANSFERASE/SUBSTRATE)	CELL ADHESION PROTEIN CELL ADHESION PROTEIN, RGD, EXTRACELLULAR MATRIX, 2 HEPARIN-BINDING, GLYCOPROTEIN	TRANSFERASE NUK; TRANSFERASE, EPH RECEPTOR TYROSINE KINASE,	TRANSFERASE NUK; TRANSFERASE, EPH RECEPTOR TYROSINE KINASE,	TYROSINE KINÁSE TYROSINE KINASE-INHIBITOR COMPLEX, DOWN-REGULATED KINASE, 2 ORDERED ACTIVATION LOOP	STRUCTURAL PROTEIN INTEGRIN, HEMIDESMOSOME, FIBRONECTIN, CARCINOMA, STRUCTURAL 2 PROTEIN	STRUCTURAL PROTEIN INTEGRIN, HEMIDESMOSOME, FIBRONECTIN, CARCINOMA, STRUCTURAL 2 PROTEIN	TRANSFERASE ALPHA BETA FOLD	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN,
Coumpound	PEPTIDE SUBSTRATE; CHAIN: B;	FIBRONECTIN; CHAIN: NULL;	TYROSINE-PROTEIN KINASE RECEPTOR EPH; CHAIN: A;	TYROSINE-PROTEIN KINASE RECEPTOR EPH; CHAIN: A;	HAEMATOPOETIC CELL KINASE (HCK); CHAIN: A;	NTEGRIN BETA-4 SUBUNIT; CHAIN: A, B;	INTEGRIN BETA-4 SUBUNIT; CHAIN: A, B;	LCK KINASE; CHAIN: A;	TENASCIN; CHAIN: A, B;
SEQFOL D score				182.17					
PMF score		0.53	1.00		1.00	0.22	0.18	1.00	-0.03
Verify score		0.08	0.58		06:0	0.19	0.03	0.97	0.27
Psi Blast		1.3e-25	1.5e-83	1.5e-83	0	1.5e-36	6.8e-11	0	1.5e-30
END		533	202	202	902	534	522	900	529
STAR T AA		331	31	31	019	329	331	621	331
CHAI N ID			A	Ą	A	Ą	¥	A	A
PDB ID		1mfn	Inuk	Inuk	Iqcf	1qg3	1923	Iqpc	1qr4
SEQ ID NO:		1396	1396	1396	1396	1396	1396	1396	1396

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PDB annotation	EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN	TYROSINE-PROTEIN KINASE NMR, RECEPTOR OLIGOMERIZATION, EPH RECEPTORS, TYROSINE 2 PHOSPHORYLATION, SIGNAL TRANSDUCTION, TYROSINE-PROTEIN 3 KINASE		TRANSFERASE KDR; TYROSINE KINASE	PROTEIN BINDING ED-B, FIBRONECTIN, TYPEIII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING	PROTEIN BINDING ED-B, FIBRONECTIN, TYPEIII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING	COAGULATION FACTOR	COMPLEX (TWO DNA-BINDING PROTEINS/DNA) MAT ALPHA-2; COMPLEX (TWO DNA-BINDING PROTEINS/DNA), COMPLEX, 2 DNA- BINDING PROTEIN, DNA, TRANSCRIPTION REGULATION	COMPLEX (DNA-BINDING PROTEIN/DNA) GHF-1; COMPLEX
Coumpound		EPHRIN TYPE-B RECEPTOR 2; CHAIN: NULL;	GLYCOPROTEIN FIBRONECTIN (TENTH TYPE III MODULE) (NMR, 36 STRUCTURES) 11TF 3	VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR CHAIN: A;	FIBRONECTIN; CHAIN: A;	FIBRONECTIN; CHAIN: A;	HUMAN TISSUE FACTOR; 2HFT 4 CHAIN: NULL; 2HFT 5	MATING-TYPE PROTEIN A-1; CHAIN: A; MATING-TYPE PROTEIN ALPHA-2; CHAIN: B; DNA; CHAIN: C;	PIT-1; CHAIN: A, B; DNA; CHAIN: C, D;
SEQFOL D score									
PMF score		00.1	0.25	1.00	-0.14	0.17	-0.18	66.0	0.94
Verify score		1.03	0.13	0.88	0.07	0.36	0.22	 	0.82
Psi Blast		1.7e-25	le-17	5.1e-98	3e-09	9e-19	6e-34	66-05	0.00015
END AA		566	524	897	423	529	524	121	125
STAR T AA		934	044	622	326	439	324	-	83
CHAI N ID				A	٧	V		¥	Ą
PDB ID		lsgg]#ff	lvr2	2fnb	2fnb	2hft	1akh	lau7
SEQ ID NO:		1396	1396	1396	1396	1396	1396	1401	1401

PDB annotation	(DNA-BINDING PROTEIN/DNA), PITUITARY, CPHD, 2 POU DOMAIN, TRANSCRIPTION FACTOR	PROTEIN/DNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN PROTEIN/DNA	DNA-BINDING PROTEIN ISL-1HD DNA-BINDING PROTEIN HOMFODOMAIN LIM DOMAIN	GENE REGULATION PBX1; HOMEODOMAIN	COMPLEX (DNA-BINDING PROTEIN/DNA) DNA-BINDING PROTEIN, DNA, PAIRED BOX, TRANSCRIPTION 2 REGULATION		COMPLEX (TRANSCRIPTION/HOMEOBOX/DNA) PHEROMONE RECEPTOR TRANSCRIPTION FACTOR; MATING-TYPE PROTEIN ALPHA-2; TRANSCRIPTION REGULATION, TRANSCRIPTIONAL REPRESSION, 2 DNA-BINDING PROTEIN, COMPLEX (TRANSCRIPTION/HOMEOBOX/DNA	DNA-BINDING PROTEIN	
Coumpound		HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: P: DNA CHAIN: F:	INSULIN GENE ENHANCER PROTEIN ISL-1; CHAIN: NULL;	HOMEOBOX PROTEIN PBXI; CHAIN: A;	PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F	DNA-BINDING PROTEIN OCT-2 POU HOMEODOMAIN (NMR, AVERAGE STRUCTURE) 1HDP 3	MCMI TRANSCRIPTIONAL REGULATOR; CHAIN: A, B; MAT ALPHA-2 TRANSCRIPTIONAL REPRESSOR; CHAIN: C, D; STE6 OPERATOR DNA; CHAIN: E, F;	OCT-3; 10CP 5 CHAIN: NULL; 10CP 6	DNA BINDING PROTEIN OCT-1 POU HOMEODOMAIN DNA- BINDING PROTEIN MUTANT
SEQFOL D score								ļ ¹	
PMF score		0.43	0.93	0.03	66.0	0.80	00:1	0.84	96.0
Verify score		0.27	0.73	-0.11	0.82	0.50	0.63	0.28	0.41
Psi Blast		9000'0	6e-05	0.0003	0.0003	0.00015	0.00015	90-96	0.0001
END		125	125	127	125	125	125	125	125
STAR T AA		83	83	83	83	83		83	83
CHAI		В		4	æ		.· 'U		
PDB ID		1672	1bw5	1du6	161	lhdp	lmn m	10ср	1pog
SEQ NO:		1401	1401	1401	1401	1401	1401	1401	1401

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PDB annotation		COMPLEX (ISOMERASE/DNA) COMPLEX (ISOMERASE/DNA), DNA, TOPOISOMERASE I	ENDOCYTOSIS/EXOCYTOSIS NSECI; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	LPID BINDING PROTEIN APOE3; LIPID TRANSPORT, HEPARIN- BINDING, PLASMA PROTEIN, HDL, VLDL	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	SERUM PROTEIN ACRP30 C1Q TNF TRIMER ALL-BETA, SERUM	PROTEIN SERUM PROTEIN ACRP30 CIQ TNF TRIMER ALL-BETA, SERUM PROTEIN	SERUM PROTEIN ACRP30 C1Q TNF TRIMER ALL-BETA, SERUM PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 22
Coumpound	WITH IPOG 3 ARG GLY SER HIS MET INSERTED AT THE N- TERMINUS AND ASP ILE IPOG 4 INSERTED AT THE C- TERMINUS (INS(RGSHM- R6),INS(I66-DI) IPOG 5 (NMR,	TOPOISOMERASE I; CHAIN: A; DNA; CHAIN: B, C;	SYNTAXIN BINDING PROTEIN 1; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	APOLIPOPROTEIN E; CHAIN: A;	HUMAN SKELETAL MUSCIE ALPHA-ACTININ 2; CHAIN: A;	30 KD ADIPOCYTE COMPLEMENT-RELATED	PROTEIN CHAIN: A, B, C; 30 KD ADIPOCYTE COMPLEMENT-RELATED PROTEIN CHAIN: A. B. C.	30 KD ADIPOCYTE COMPLEMENT-RELATED PROTEIN CHAIN: A, B, C;	ALPHA SPECTRIN; CHAIN: A, B, C;
SEQFOL D score									
PMF		-0.09	0.00	0.19	0.04	0.39	-0.13	0.43	0.29
Verify score		0.03	-0.16	-0.13	-0.12	1.14	0.71	0.84	-0.03
Psi Blast		5.1e-08	0.00017	0.00017	6e-15	le-27	6e-22	4.5e-18	6e-12
END		772	556	634	551	947	947	947	591
STAR T AA		644	389	527	367	826	827	826	375
CHAI N ID		A	æ	¥	A	¥	В	ပ	¥
PDB ID		1a36	1dn1	lor3	Iquu	1c28	1c28	1c28	Icun
SEQ NO:		1403	1403	1403	1403	1404	1404	1404	1404

PDB annotation	TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	MEMBRANE PROTEIN FOUR HELIX BUNDLE, ALPHA HELIX	GROWTH FACTOR NEU DIFFERENTIATION FACTOR (RAT), ACETYLCHOLINE GROWTH FACTOR		COMPLEX (ISOMERASE/PROTEIN KINASE) FKBP12; SERINE/THREONINE-PROTEIN KINASE RECEPTOR R4; COMPLEX (ISOMERASE/PROTEIN KINASE), RECEPTOR 2 SERINE/THREONINE KINASE	PHOSPHOTRANSFERASE FGFRIK, FIBROBLAST GROWTH FACTOR RECEPTOR 1; TRANSFERASE, TYROSINE-PROTEIN KINASE, ATP-BINDING, 2 PHOSPHORYLATION, RECEPTOR, PHOSPHOTRANSFERASE
Coumpound		ALPHA SPECTRIN; CHAIN: A, B, C;	SSOI PROTEIN; CHAIN: A;	HEREGULIN-ALPHA; CHAIN: NULL;	GROWTH FACTOR HEREGULIN-ALPHA (BPIDERMAL GROWTH FACTOR-LIKE DOMAIN) 1HRE 3 (NMR, MINIMIZED AVERAGE STRUCTURE) 1HRE 4	FK506-BINDING PROTEIN; CHAIN: A, C, E, G; TGF-B SUPERFAMILY RECEPTOR TYPE I; CHAIN: B, D, F, H;	FGF RECEPTOR 1; CHAIN: A, B;
SEQFOL D score							
PMF score		0.03	0.19	0.11	0.25	0.12	0.04
Verify score		0.02	-0.08	0.07	0.13	-0.26	-0.02
Psi Blast		4.5e-07	6e-07	0.0045	0.0045	1.4e-09	1.7e-05
END		651	467	150	150	129	126
STAR T AA		436	292	120	120	25	ឌ
CHAI		V	A			a ·	∢
PDB		.1cun	1fio	Ihae	1hre	1b6c	Ifgk
) Oas	Ö	1404	1404	1404	1404	1407	1407

PDB annotation	PHOSPHOTRANSFERASE C-SRC, P60-SRC; SRC, TYROSINE KINASE, PHOSPHORYLATION, SH2, SH3, 2 PHOSPHOTYROSINE, PROTO- ONCOGENE, PHOSPHOTRANSFERASE	TRANSFERASE P150, C-ABL; KINASE, KINASE INHIBITOR, STI- 571, ACTIVATION LOOP	TRANSFERASE MAP KINASE, SERINE/THREONINE PROTEIN KINASE, TRANSFERASE	TYROSINE KINASE TYROSINE KINASE-INHIBITOR COMPLEX, DOWN-REGULATED KINASE, 2 ORDERED ACTIVATION LOOP	TRANSFERASE ALPHA BETA FOLD	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE, MAP 2, ERK2; TRANSFERASE, SERINE/THREONINE-PROTEIN KINASE, MAP KINASE, 2 ERK2	LIPID-BINDING PROTEIN PEBP, PBP		LIPID-BINDING LIPID-BINDING, SIGNALLING	LIPID-BINDING LIPID-BINDING, SIGNALLING
Coumpound	TYROSINE-PROTEIN KINASE SRC; CHAIN: NULL;	PROTO-ONCOGENE TYROSINE-PROTEIN KINASE ABL; CHAIN: A, B;	ERK2; CHAIN: NULL;	HAEMATOPOETIC CELL KINASE (HCK); CHAIN: A;	LCK KINASE; CHAIN: A;	EXTRACELLULAR REGULATED KINASE 2; CHAIN: NULL;	PHOSPHATIDYLETHANOLAMI NE-BINDING PROTEIN; CHAIN: NULL;	PHOSPHATIDYLETHANOLAMI NE-BINDING PROTEIN; CHAIN: NULL;	PHOSPHATIDYLETHANOLAMI NE BINDING PROTEIN; CHAIN: A, B;	PHOSPHATIDYLETHANOLAMI NE BINDING PROTEIN; CHAIN:
SEQFOL D score								267.15		271.38
PMF score	0.36	0.18	0.37	0.11	0.23	0.09	1.00		1.00	
Verify score	0.17	-0.09	-0.12	-0.56	-0.75	-0.35	09:0		0.89	
Psi Blast	3e-05	1.5e-05	7.5e-06	9e-05	7.5e-05	1.5e-05	4.5e-70	4.5e-70	3e-68	3e-68
END	127	130	131	129	61	126	168	168	168	168
STAR T AA	22	22	21	22	22	21	2	2	3	3
CHAI N ID		∢		∢	Ą				¥	¥
PDB ID	1fmk	lfpu	Ipme	lqcf	1qpc	3erk	1a44	1a44	1beh	Ibeh
SEQ NO:	1407	1407	1407	1407	1407	1407	1408	1408	1408	1408

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FDB annotation		HALOPEROXIDA SE BROMOPEROXIDA SE L, HALOPEROXIDA SE L; HALOPEROXIDA SE, OXIDOREDUCTASE	HALOPEROXIDASE HALOPEROXIDASE F; HALOPEROXIDASE, OXIDOREDUCTASE, PROPIONATE COMPLEX	AMINOPEPTIDASE AMINOPEPTIDASE, PROLINE IMINOPEPTIDASE, SERINE PROTEASE, 2 XANTHOMONAS CAMPESTRIS	AMINOPEPTIDASE AMINOPEPTIDASE, PROLINE IMINOPEPTIDASE, SERINE PROTEASE, 2 XANTHOMONAS CAMPESTRIS	HYDROLASE HYDROLASE, HALOALKANE DEHALOGENASE, ALPHA/BETA-HYDROLASE	HYDROLASE HYDROLASE, HALOALKANE DEHALOGENASE, ALPHA/BETA-HYDROLASE	HYDROLASE A/B HYDROLASE FOLD, DEHALOGENASE I-S BOND	HYDROLASE LINB, 1,3,4,6- TETRACHLORO-1,4- CYCLOHEXADIENE
Coumpound	A, B;	CHIOROPEROXIDASE L; CHAIN: A, B, C;	CHLOROPEROXIDASE F; CHAIN: NULL;	PROLINE IMMOPEPTIDASE; CHAIN: A, B;	PROLINE IMINOPEPTIDASE; CHAIN: A, B;	SE; CHAIN:	HALOALKANE DEHALOGENASE; CHAIN: NULL;	HALOALKANE DEHALOGENASE; 1- CHLOROHEXANE CHAIN: A;	HALÓALKANE DEHALOGENASE; CHAIN: A;
SEQFOL D score				60.20		61.14			
PMF		06:0	0.45		0.42		0.77	0.99	0.19
Verify		0.25	0.13		0.00		0.13	0.38	-0.16
Psi Blast		0.00015	9e-08	4.5e-05	4.5e-05	1.5e-08	1.5e-08	60-99	3e-05
END AA		319	319	319	319	325	318	319	154
STAR T AA		47	47	Ξ	47	12	35	10	47
CHAI		4		∢	∢			V	4
EDB ET		1a88	la8s	lazw	lazw	1b6g	1 b 6g	lcqw	lcv2
SE O O O O O		1410	1410	1410	1410	1410	1410	1410	1410

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DEHALOGENASE, LINDANE, BIODEGRADATION, ALPHA/BETA- HYDROLASE	HYDROLASE HOMODIMER, ALPHA/BETA HYDROLASE FOLD, DISUBSTITUTED UREA 2 INHIBITOR	HYDROLASE HOMODIMER, ALPHA/BETA HYDROLASE FOLD, DISUBSTITUTED UREA 2 INHIBITOR	HYDROL ASE LIPASE	HYDROLASE PSEUDOMONADACEAE, CIS- PEPTIDE, CLOSED	CONFORMATION, 2 HYDROLASE, LID	LYASE OXYNITRILE LYASE; OXYNITRILASE, CYANOGENESIS, CYANIJYDEN, FORMATION 1 VASE	HYDROLASE ALPHA BETA HYDROLASE FOLD, PROLINE, PROLYL AMINOPEPTIDASE, 2 PROLYL AMINOPEPTIDASE, 2	HYDROLASE ALPHA BETA HYDROLASE FOLD, PROLINE, PROLYL AMINOPEPTIDASE, 2 SERRATIA, IMINOPEPTIDASE	LPASE LPASE; LPASE, HYDROLASE, PSEUDOMONADACEAE, COVALENT NTERMEDIATE, 2 TRIGLYCERIDE ANALOGUE, ENANTIOSELECTIVITY	OTO CHANGE OF A PARTY	ENDOCY LOSIS/EXOCY LOSIS NSECI; PROTEIN-PROTEIN
	EPOXIDE HYDROLASE; CHAIN: A, B;	EPOXIDE HYDROLASE; CHAIN: A, B;	LIPASE, GASTRIC; CHAIN: A, B;	TRIACYLGLYCEROL HYDROLASE; CHAIN: D; TRIACYLGLYCEROL	HYDROLASE; CHAIN: E;	HYDROXYNITRILE LYASE; CHAIN: A;	PROLYL AMINOPEPTIDASE; CHAIN: A;	PROLYL AMINOPEPTIDASE; CHAIN: A;	TRIACYL-GLYCEROL- HYDROLASE; CHAIN: D, E;	CAST AND INCIDENCE OF THE PERSON OF THE PERS	I; CHAIN: A; SYNTAXIN IA;
							57.92				
	0.98	0.95	0.41	0.10		0.37		0.12	0.05	9	0.03
	0.12	0.14	-0.15	-0.13		0.02		-0.51	0.06	5	-0.02
	1.1e-07	3e-07	0.003	900000		9e-09	1.2e-05	1.2e-05	9e-05	240000	0.00045
	321	321	165			316	321	319	155	613	213
	47	47	47	47		47	Ξ	74	47	201	50 4
	¥	В	V	Д		Ą	Ą	∢	О	r.	a
	leki	1ek1	1hlg	1qge		1qj4	lqtr	lqtr	4lip	1411	Tup!
	1410	1410	1410	1410		1410	1410	1410	1410	1416	1413
	DEHALOGENASE, LINDANE, BIODEGRADATION, ALPHA/BETA- HYDROLASE	1ek1 A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: A, B; A, B;	lek1 A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: lek1 B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE; CHAIN: lek1 B 47 321 3e-07 0.14 0.95 A, B;	lek1 A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: lek1 B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE; CHAIN: lhig A 47 165 0.003 -0.15 0.41 LPASE, GASTRIC; CHAIN: A, B;	lek1 A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: A, B; lek1 B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE; CHAIN: A, B; lbig A 47 165 0.003 -0.15 0.41 LIPASE, GASTRIC; CHAIN: A, B; lqge D 47 195 0.0006 -0.13 0.10 HYDROLASE; CHAIN: D; TRIACYLGLYCEROL TRIACYLGLYCEROL TRIACYLGLYCEROL TRIACYLGLYCEROL TRIACYLGLYCEROL	lek1 A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: A, B; lek1 B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE; CHAIN: A, B; lhig A 47 165 0.003 -0.15 0.41 LIPASE, GASTRIC; CHAIN: A, B; lqge D 47 195 0.0006 -0.13 0.10 HYDROLASE; CHAIN: D; lqge D 47 195 0.0006 -0.13 0.10 HYDROLASE; CHAIN: D; lqge D 47 195 0.0006 -0.13 0.10 HYDROLASE; CHAIN: D; lqge D 47 195 0.0006 -0.13 0.10 HYDROLASE; CHAIN: E;	1ek1 A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: A, B; 1ek1 B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE; CHAIN: A, B; 1hge D 47 165 0.003 -0.15 0.41 LPASE, GASTRIC; CHAIN: A, B; 1qge D 47 195 0.0006 -0.13 0.10 HYDROLASE; CHAIN: B, TRIACYLGLYCEROL 1qj4 A 47 316 9e-09 0.02 0.37 HYDROXYNITRLE LYASE; 1qj4 A 47 316 9e-09 0.02 0.37 CHAIN: A;	leki A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: A, B; leki B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE; CHAIN: A, B; lhig A 47 165 0.003 -0.15 0.41 1.Dase, GASTRIC; CHAIN: A, B; lqge D 47 195 0.0006 -0.13 0.10 HYDROLASE; CHAIN: B; lqj4 A 47 316 9e-09 0.02 0.37 HYDROLASE; CHAIN: B; lqjr A 47 316 9e-09 0.02 0.37 HYDROXYNITRILE LYASE; lqr A 11 321 1.2e-05 87.92 PROLYLAMINOPEPTIDASE; lqr A 11 321 1.2e-05 77.92 PROLYLAMINOPEPTIDASE;	1ek1 A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: A, B; B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE; CHAIN: A, B; B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE; CHAIN: A, B; B 47 195 0.0006 -0.13 0.10 HYDROLASE; CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: A; B 1.2e-05 0.02 0.37 CHAIN: A; CHAIN: A	1eki A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE, CHAIN: A, B; 1eki B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE, CHAIN: A, B; 1eki B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE, CHAIN: A, B; 1eki B 47 321 3e-07 0.14 0.95 EPOXIDE HYDROLASE, CHAIN: A, B; 1eki A 47 195 0.0006 -0.13 0.10 TRIACYLGLYCEROL HYDROLASE, CHAIN: B; 1eki A 47 195 0.0006 -0.13 0.10 TRIACYLGLYCEROL HYDROLASE, CHAIN: B; 1eki A 47 195 0.0006 -0.13 0.10 TRIACYLGLYCEROL HYDROCYNITRILE LYASE; 1qt A 47 316 9e-09 0.02 0.37 CHAIN: A; 1qt A 74 319 1.2e-05 -0.51 0.12 CHAIN: A; 1qt A 74 155 9e-05 0.06 0.05 TRIACYL-GLYCEROL- HYDROLASE; CHAIN: D, E; 4lip D 47 155 9e-05 0.06 0.05 TRIACYL-GLYCEROL- HYDROLASE; CHAIN: D, E; 4lip D 47 155 9e-05 0.06 0.05 TRIACYL-GLYCEROL- HYDROLASE; CHAIN: D, E; 4lip D 47 155 9e-05 0.06 0.05 TRIACYL-GLYCEROL- HYDROLASE; CHAIN: D, E; 4lip D 47 155 9e-05 0.06 0.05 TRIACYL-GLYCEROL- HYDROLASE; CHAIN: D, E;	1ek1 A 47 321 1.1e-07 0.12 0.98 EPOXIDE HYDROLASE; CHAIN: A; B; B; B; B; B; B; B; B; B; B; B; B; B;

CHAI	STAR T AA	END AA	Psi Blast	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
							CHAIN: B;	COMPLEX, MULTI-SUBUNIT
1								
1	401	426	0.00015	0.11	0.01		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA),
							OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	ZINC FINGER, DNA-BINDING PROTEIN
	404	485	3e-24	0.05	0.95		OGSR ZINC FINGER PEPTIDE;	COMPLEX (ZINC FINGER/DNA)
							CHAIN: A; DUFLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	COMPLEA (AING FINGERDINA), ZINC FINGER, DNA-BINDING PROTEIN
	403	486	4.5e-25			76.20	DNA; CHAIN; A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
							CONSENSUS ZINC FINGER PROTEIN; CHAIN: C. F. G.	FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2
								CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
	404	485	4.5e-25	-0.09	1.00		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER PROTEIN A
				-			PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
								CRYSTAL STRUCTURE, COMPLEX
								(ZINC FINGER/DNA)
	432	543	6e-23	-0.01	0.53		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA
-							PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
								CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
[_	461	575	1.2e-21	-0.31	90.0		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
							CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
							PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
							-	CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
1	522	547	1.2e-06	-0.44	0.25		SP1F3; CHAIN: NULL;	ZINC FINGER TRANSCRIPTION
								FACTOR SPI; ZINC FINGER, TRANSCRIPTION ACTIVATION SPI
1	408	543	1.4e-24	-0.01	0.07		YY1; CHAIN: C; ADENO-	COMPLEX (TRANSCRIPTION

PDB annotation	REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG I; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION)	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ADR1, ZINC FINGER, NMR	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ADR1, ZINC FINGER, NMR	·	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-
Coumpound	ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	ADRI; CHAIN: NULL;	ADRI; CHAIN: NULL;	COMPLEX(TRANSCRIPTION REGULATION/DNA) TRAMTRACK PROTEIN (TWO ZINC-FINGER PEPTIDE) COMPLEXED WITH 2DRP 3 DNA 2DRP 4	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;
SEQFOL D score							
PMF score		0.03	0.17	0.03	0.06	0.47	0.25
Verify score		-0.42	0.04	-0.41	-0.69	-0.05	-0.16
Psi Blast		16-24	4.5e-14	1.4e-12	1.2e-14	3e-20	4.5e-33
END AA		575	549	575	577	485	575
STAR T AA		432	461	522	522	369	404
CHAI N ID		ပ			A	¥	V
708 CI		1ubd	2adr	2adr	2drp	2gli	2gli
SEQ ID NO:		1418	1418	1418	1418	1418	1418

PDB annotation	BINDING PROTEIN/DNA)	COMPLEX (BLOOD COAGULATION/INHIBITOR) AUTOPROTHROMBIN IIA;	HYDROLASE, SERINE PROTEINASE), PLASMA CALCIUM	BINDING, 2 GLYCOPROTEIN,	COAGULATION/INHIBITOR)	BLOOD COAGULATION, SERINE	PROTEASE, COMPLEX, CO-FACTOR,	CIA POR 2 COMPLEY (SEPTIFIE	OLA, EGF, 3 COMPLEA (SEMINE PROTEASE/COFACTOR/I IGAND)		SERINE PROTEINASE	COAGULATION FACTOR II;	COAGULATION FACTOR II;	FETOMODULIN, TM, CD141	ANTIGEN; EGR-CMK SERINE	PROTEINASE, EGF-LIKE DOMAINS,	ANTICOAGULANT COMPLEX, 2	ANTIFIBRINOL YTIC COMPLEX	SERINE PROTEINASE	COAGULATION FACTOR II;	COAGULATION FACTOR II;	FETOMODULIN, TM, CD141	ANTIGEN; EGR-CMK SERINE	PROTEINASE, EGF-LIKE DOMAINS,	ANTICOAGULANT COMPLEX, 2	ANTIFIBRINOL YTIC COMPLEX	SIGNALLING PROTEIN BINDING	PROTEIN, CYTOKINE, SIGNALLING
Coumpound	B	ACTIVATED PROTEIN C; CHAIN: C, L; D-PHE-PRO-MAI; CHAIN: P;	H	<u> </u>		BLOOD COAGULATION B	FACTOR VIIA; CHAIN: L, H;			ن ن		_	z		z	Y-L-	ARM; CHAIN: E, F, G, H;			_	z.			Y-L-	ARM; CHAIN: E, F, G, H;		S.	RECEPTOR; CHAIN: A, B; PI
SEQFOL D score						57.15																						
PMF score		0.17									0.24								0.55								-0.11	
Verify score		0.04									0.14								0.33								0.14	
Psi Blast		3e-15				1.5e-15					le-17								1.le-13								3e-16	
END AA		259				270					232								264								191	
STAR T AA		118				136					136								168								31	
CHAI N ID		1				r					-								_								A	
PDB ID		laut				1dan					1dx5								1dx5								lext	
SEQ No:		1419				1419					1419								1419				_				1419	

PDB annotation	CHRISTMAS FACTOR, COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN		SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE INHIBITOR, THROMBOSIS	PLASMINOGEN ACTIVATION
Coumpound		HYDROLASE CALCIUM-FREE PHOSPHOLIPASE A=2= (E.C.3.1.1.4) 1PP2 4	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	ANTISTASIN; CHAIN: NULL;	ANTISTASIN; CHAIN: NULL;	T-PLASMINOGEN ACTIVATOR
SEQFOL D score						55.31	
PMF score		-0.18	0.30	-0.06	0.98		0.53
Verify score		0.24	0.11	0.09	-0.17		0.31
Psi Blast		1.5e-19	3e-15	7.5e-15	3e-15	3e-15	4.5e-20
END		169	216	247	271	179	237
STAR T AA		39	109	145	141	99	156
CHAI N ID		ж	□	J			
PDB ID		1pp2	1qfk	1qfk	lskz	lskz	Itpg
SEQ ID NO:		1419	1419	1419	1419	1419	1419

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PDB annotation			PLASMINOGEN ACTIVATION	PLASMINOGEN ACTIVATION	LIPID DEGRADATION PHOSPHOLIPASE A2, LIPID DEGRADATION, HYDROLASE	LIPID DEGRADATION PHOSPHOLIPASE A2, LIPID DEGRADATION, HYDROLASE	NEUROTOXIN PHOSPHOLIPASE A2 INHIBITOR, X-RAY STRUCTURE, RECOGNITION, 2 MOLECULAR EVOLUTION, NEUROTOXIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN		OXIDOREDUCTASE CPR, P450R; X-RAY CRYSTALLOGRAPHY, FLAVOPROTEIN, NITRIC OXIDE SYNTHASE, 2 OXIDOREDUCTASE	OXIDOREDUCTASE TWO DOMAIN MOTIF, ROSSMANN FOLD
Coumpound		F1-G; 1TPG 7 CHAIN: NULL; 1TPG 8	T-PLASMINOGEN ACTIVATOR F1-G; 1TPG 7 CHAIN: NULL; 1TPG 8	T-PLASMINOGEN ACTIVATOR F1-G; ITPG 7 CHAIN: NULL; ITPG-8	PHOSPHOLIPASE A2; CHAIN: A, B;	PHOSPHOLIPASE A2; CHAIN: A, B;	PHOSPHOLIPASE A2 INHIBITOR; CHAIN: NULL	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	NADPH-CYTOCHROME P450 REDUCTASE; CHAIN: A, B;	CHLOROPLAST FERREDOXIN- NADP+OXIDOREDUCTASE; CHAIN: A, B;
SEQFOL	D score										
PIMIF	score		0.18	-0.01	-0.19	-0.19	-0.18	0.37	0.30	0.01	0.21
Verify	score		-0.31	0.14	0.02	0.04	0.07	0.17	0.23	-0.16	-0.13
Psi Blast			4.5e-15	7.5e-19	96-16	7.5e-16	3 c -19	9e-14	1.5e-24	6.8e-40	5.1e-57
END	AA		297	109	273	236	204	222	142	539	538
STAR	I AA		220	29	145	181	81	145	13	272	252
CHAI	U N				¥	¥		1	¥	∀	4
PDB	3		1tpg	Itpg	Ivap	lvap	lvpi	lxka	9wga	lamo	1163
SEQ	a ë		1419	1419	1419	1419	1419	1419	1419	1421	1421

PDB annotation		OXIDOREDUCTASE RIBOFLAVIN, FLAVIN REDUCTASE, FERREDOXIN REDUCTASE 2 SUPERFAMILY, OXIDOREDUCTASE	OXIDOREDUCTASE FNR; FLAVOENZYME, PHOTOSYNTHESIS, ELECTRON TRANSFER, HYDRIDE 2 TRANSFER, OXIDOREDUCTASE	OXIDOREDUCTASE FNR; OXIDOREDUCTASE, FLAVOPROTEIN, NADP, FAD, THYLAKOID MEMBRANE, 2 HYCOBILISOME, FNR, NADP+ REDUCTASE		COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA),
Coumpound	OXIDOREDUCTASE (NADP+(A), FERREDOXIN(A)) FERREDOXIN:NADP+ OXIDOREDUCTASE (FERREDOXIN REDUCTASE, 1FNB 3 FLAVOENZYME) (E.C.1.18.1.2) 1FNB 4 1FNB 72	FLAVIN REDUCTASE; CHAIN: A, B, C, D;	FERREDOXIN:NADP+ REDUCTASE; CHAIN: A, B;	FERREDOXINNADP+ REDUCTASE; CHAIN: NULL;	OXIDOREDUCTASE (NITROGENOUS ACCEPTOR) NADH-DEPENDENT NITRATE REDUCTASE (CYTOCHROME B REDUCTASE 2CND 3 FRAGMENT) (E.C.1.6.6.1) COMPLEXED WITH FAD 2CND 4 (SYNCHROTRON X-RAY DIFFRACTION) 2CND 5	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX
SEQFOL D score						80.07
PMF score	0.01	0.07	0.43	-0.03	-0.12	
Verify score	60.0	-0.07	-0.14	0.06	0.00	
Psi Blast	3.4e-55	3.4e-31	1.7e-54	3.4e-49	3.4e-57	1.5e-45
END AA	538	510	537	538	502	347
STAR T AA	252	246	252	258	244	265
CHAI N ID		¥	¥			∢
PDB ID	1fnb	1qfj	1qfz	1que	2cnd	lalh
SEQ ID NO:	1421	1421	1421	1421	1421	1426

		DNC INC	×, 2			<u> </u>	-		8					 \}.					<u> </u>		
PDB annotation	A-BINDING	FINGER/DNA) 2 N-DNA	ROTEIN DESIGN TURE, COMPLE	SCRIPTION VA) COMPLEX	AA), RNA	INITIATION, ZI	SCRIPTION 14 VANG	INITIATION,	ENT, YY1, ZINC	4, UNA-PROTEIN COMPLEX		(A)	BINDING TAE EINGEB GLI	R COMPLEX (D)	N/DNA)		SCRIPTION A A MECE PETFON	N-DNA COMPLE	TVATION.	ISCRIPTION	
PDB a	ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX	REGULATION/DNA), RNA POLYMERASE III. 2	TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION PEGIT ATION DAY) VING VANG 1:	TRANSCRIPTION INITIATION	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN RECOGNITION 3 COMPLEX	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (DNA-BINDING PROTERIONA) FIVE FINGER GI I:	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)		COMPLEX (TRANSCRIPTION	FACTOR PROTEIN-DNA COMPLEX	CYTOKINE 2 ACTIVATION	COMPLEX (TRANSCRIPTION	こと クエクロ グランドルン
Coumpound	OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, E.			YY1; CHAIN: C; ADENO-	INITIATOR ELEMENT DNA;	CHAIN: A, B;		•		ZINC FINGER PROTEIN GLII;				STAT3B; CHAIN: A; 18-MER	CHAIN: B:			
SEQFOL D score		103.77 I		99.56	<u></u>		88.81		<u>~</u> _				93.51								_
PMF			-														0.27				
Verify score			-														0.41				
Psi Blast		16-51		1.7e-38			6e-54						69-99			7	0.00034				_
END		318		402			318						347				320				
STAR T AA		236		236			211						207			,	191				_
CHAI N ID		ပ		A			၁						<				∢				
PDB ID		1mey		1466			lubd						2gli	·		,	lbgl				
SEQ ID NO:		1426		1426			1426						1426				1434				_

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PDB annotation	LIPID TRANSPORT, LIPID TRANSPORT, HEPARIN-BINDING, PLASMA 2 PROTEIN, HDL, VLDL REMARK	TRANSMEMBRANE PROTEIN COLICIN, BACTERIOCIN, ION CHANNEL FORMATION, TRANSMEMBRANE 2 PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 22 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	ENDOCYTOSIS/EXOCYTOSIS NSECI; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX
Coumpound		COLICIN IA; CHAIN: NULL;	ALPHA SPECTRIN; CHAIN: A, B, C;	ALPHA SPECTRIN; CHAIN: A, B, C;	ALPHA SPECTRIN; CHAIN: A, B, C;	ALPHA SPECTRIN; CHAIN: A, B, C;	SYNTAXIN BINDING PROTEIN I; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	SYNTAXIN-1A; CHAIN: A, B, C;
SEQFOL D score		115.08						
PMF score			-0.01	0.00	0.10	0.40	0.18	-0.18
Verify score			0.07	0.28	0.10	0.40	0.05	0.18
Psi Blast		1.5e-27	7.5e-11	3e-10	3e-11	90-99	6e-11	1.5e-08
END AA		514	372	430	475	494	481	449
STAR T AA			127	228	253	389	296	316
CHAI N ID			«	V	V	¥	В	¥
PDB ID		1cii	Icun	Icun	Icun	lcun	1dn1	lez3
SEQ NO:		1434	1434	1434	1434	1434	1434	1434

PDB annotation	BUNDLE	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX BUNDLE	TRANSFERASE ALPHA- SUPERHELIX, TRANSFERASE	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	TRANSCRIPTION REGULATION SIGMA70; RNA POLYMERASE SIGMA FACTOR, TRANSCRIPTION REGULATION	TRANSCRIPTION REGULATION SIGMA70; RNA POLYMERASE SIGMA FACTOR, TRANSCRIPTION REGULATION	G-PROTEIN CDC42 GTPASE. ACTIVATING PROTEIN; G-PROTEIN, GAP, SIGNAL-TRANSDUCTION	COMPLEX(GTPASE ACTIVATN/PROTO-ONCOGENE) GTPASE-ACTIVATING PROTEIN RHOGAP; COMPLEX (GTPASE ACTIVATION/PROTO-ONCOGENE), GTPASE, 2 TRANSITION STATE, GAP	CALCIUM/PHOSPHOLIPID-BINDING
Coumpound		SYNTAXIN-1A; CHAIN: A, B, C;	SOLUBLE LYTIC TRANSGLYCOSYLASE SLT70; CHAIN: A;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	RNA POLYMERASE PRIMARY SIGMA FACTOR; CHAIN: NULL;	RNA POLYMERASE PRIMARY SIGMA FACTOR; CHAIN: NULL;	RHOGAP; CHAIN: NULL;	P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN RHOA; CHAIN: B;	ANNEXIN IV; IANN 5 CHAIN:
SEQFOL D score			104.88			89.88		105.03	106.55	431.20
PMF score		-0.02		0.27	-0.17		0.21			
Verify score		0.36		0.21	0.25		0.14			
Psi Blast		1.5e-08	3e-20	1.5e-18	1.2e-09	3e-09	3e-09	1.5e-53	4.5e-58	0
END		486	514	464	481	512	514	1315	1329	299
STAR T AA		364	2	228	332	225	293	1126	1129	7
CHAI N ID		∢	4	∢	∢				∢	
PDB ID		lez3	lqsa	Iquu	1quu	lsig	lsig	Irgp	1156	lann
SEQ EQ		1434	1434	1434	1434	1434	1434	1437	1437	1441

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PDB annotation	PROTEIN 32.5 KD CALELECTRIN, ENDONEXIN I; 1ANN 7 32.5KD CALELECTRIN, ENDONEXIN I, LIPOCORTIN IV, 1ANN 12 2 CHROMOBINDIN IV, PROTEIN II					RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA	COMPLEX	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	COMPLEX	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA	COMPLEX	GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA		GENE REGULATION/RNA POLY(A)	BINDING PROTEIN I, PABP I; RRM,
Coumpound	NULL; 1ANN 6		OXIDOREDUCTASE(ACTING ON NADH OR NADPH) DIHYDROPTERIDINE	REDUCTASE (DHPR) (E.C.1.6.99.10) COMPLEX 1DHR	3 WITH NADH 1DHR 4	SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5-	R(P*GP*UP*UP*UP*UP*UP*	UP*UP*UP*UP*UP CHAIN: P, Q;	SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5'-	UP*UP*UP*UP*UP*UP. CHAIN: P. O.	SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5'-	R(P*GP*UP*UP*UP*UP*	UP*UP*UP*UP*U)-CHAIN: P, Q;	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; RNA (S'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	POLYDENYLATE BINDING	PROTEIN I; CHAIN: A, B, C, D,
SEQFOL D score			304.31										51.11				52.06						
PMF score			i			0.54				0.99												0.80	}
Verify score						0.38				0.38												0.27	<u>.</u>
Psi Blast			6.8e-55			3.4e-33				6.8e-21	-	-	6.8e-21				3.4e-46					3.4e-46	2
END AA			213			151				230			252				156					157	
STAR T AA			6			_				22			73				_					\ v	,
CHAI N ID						<				¥			Ą				¥					 	:
PDB LD			1dhr			1b7f				1b7f			167f				lcvj					1cvi	
SE O			1447			1452			Ţ	1452			1452				1452					1452	

PDB annotation	PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATIONRNA	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA
Coumpound	E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)-3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)3; CHAIN: M, N, O, P, Q, R, S, T;
SEQFOL D score				•		
PMF score		0.31	0.59	0.15	1.00	0.19
Verify score		0.02	0.25	0.08	0.74	-0.03
Psi Blast		5.1e-24	6.8e-40	I.7e-21	1.7e-19	1.7e-31
END		256	137	230	159	130
STAR T'AA		77	۶	L	1.1	v
CHAI N ID		¥	Д	В	ţ r	н
PDB ID		Icvj	lcvj	lcvj	lcvj	lcvj
SEQ NO.		1452	1452	1452	1452	1452

PDB annotation	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	RNA BINDING PROTEIN RNA- BINDING DOMAIN	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONUCLEOPROTEIN	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONUCLEOPROTEIN	RNA-BINDING PROTEIN SPLICING, U2 SNRNP, RBD, RNA-BINDING PROTEIN	COMPLEX (RIBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA), HETEROGENEOUS NUCLEAR 2 RIBONUCLEOPROTEIN A1	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3
Coumpound	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	HU ANTIGEN C; CHAIN: A;	HNRNP A1; CHAIN: NULL;	HNRNP A1; CHAIN: NULL;	SPLICING FACTOR U2AF 65 KD SUBUNIT; CHAIN: A;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B;	SEX-LETHAL; CHAIN: A, B, C;
SEQFOL D score					50.59		
PMF score	1.00	1.00	0.07	1.00		0.64	0.04
Verify score	0.81	0.73	0.06	0.87		0.28	0.13
Psi Blast	1.7e-19	1.7e-21	1.7e-35	1.7e-21	3.4e-19	1.2e-36	3.4e-32
END AA	159	153	151	157	158	155	144
STAR T AA	1.1	73	-	7.5	74	-	-
CHAI N ID	Ħ	4			¥	V	V
PDB ID	1cvj	Z8p1	lhal	lha1	2u2f	2up1	3sxl
SEQ BOS	1452	1452	1452	1452	1452	1452	1452

PDB annotation	DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA	RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3	DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	RNA BINDING DOMAIN RNA BINDING DOMAIN RBD RNA	RECOGNITION MOTIF, RRM, 2	SPLICING INHIBITOR,	TRANSLATIONAL INHIBITOR, SEX 3 DETERMINATION Y CHROMOSOME	DOSAGE COMPENSATION	TRANSFERASE HIV-1 REVERSE	TRANSCRIPTASE, AIDS, NON-	NUCLEOSIDE INHIBITOR, 2 DRUG	DESIGN	modratica t territory a demonstratory	TRANSCRIPTASE, AIDS, NON-	NUCLEOSIDE INHIBITOR, 2 DRUG	DESIGN		TRANSFERASE HIV-1 REVERSE	TRANSCRIPTASE, AIDS, NON-	NUCLEOSIDE INHIBITOR, 2 DRUG	DESIGN		TRANSFERASE/IMMUNE	SYSIEM/DNA HIV-1 KI; HIV-1 KI;
Coumpound		SEX-LETHAL; CHAIN: A, B, C;			SEX-LETHAL; CHAIN: A, B, C;					HIV-1 REVERSE	TRANSCRIPTASE (A-CHAIN);	CHAIN: A; HIV-1 REVERSE	TRANSCRIPTASE (B-CHAIN);	rm, i prymon	TRANSCRIPTASE (A-CHAIN):	CHAIN: A; HIV-1 REVERSE	TRANSCRIPTASE (B-CHAIN);	CHAIN: B;	HIV-1 REVERSE	TRANSCRIPTASE (A-CHAIN);	CHAIN: A; HIV-1 REVERSE	TRANSCRIPTASE (B-CHAIN);	CHAIN: B;	HIV-1 REVERSE	I IKANSCKIP I ASE (CHAIN A);
SEQFOL D score					53.30																				
PMF score		69.0								0.87				700	÷0.0				0.99					0.99	
Verify score		0.20								-0.04				6	7.7				-0.09					-0.06	
Psi Blast		1.4e-20			3.4e-32					3.4e-85				5 1 - 00	3.15-00				0					1.7e-91	
END		230	,		146					899				877	8 0 0				899					671	
STAR T AA		76			7					345				3,75	÷				345					341	
CHAI N ID		A			Ą					Ą				٩	۹				В					∢_	
PDB CI		3sxl			3sxl					1001				<u> </u>	3				lclc					1c9r	
SEQ NO.		1452			1452					1454				1454	<u> </u>				1454					1454	

PDB annotation	HIV, REVERSE TRANSCRIPTASE, MET184ILE, 3TC, PROTEIN-DNA 2 COMPLEX, DRUG RESISTANCE, M1841, TRANSFERASE/IMMUNE 3 SYSTEM/DNA	TRANSFERASE/IMMUNE SYSTEM/DNA HIV-1 RT; HIV-1 RT; HIV, REVERSE TRANSCRIPTASE, MET184ILE, 3TC, PROTEIN-DNA 2 COMPLEX, DRUG RESISTANCE, M1841, TRANSFERASE/IMMUNE 3 SYSTEM/DNA		REVERSE TRANSCRIPTASE	REVERSE TRANSCRIPTASE	NUCLEOTDYL TRANSFERASE HIV-1 RT; IRTH 6 HIV-1 REVERSE TRANSCRIPTASE IRTH 15	NUCLEOTIDYLTRANSFERASE HIV-1 RT; 1RTH 6 HIV-1 REVERSE
e.	HIV, REVERSI MET184ILE, 3' COMPLEX, DI M184I, TRANS SYSTEM/DNA	TRANSFERAS SYSTEM/DNA HIV, REVERSI MET184ILE, 33 COMPLEX, DR M184I, TRANS SYSTEM/DNA		REVERSE TI	REVERSE TI	NUCLEOTIE RT; 1RTH 61 TRANSCRIP	NUCLEOTIE RT; 1RTH 6 I
Coumpound	CHAIN: A; HIV-1 REVERSE TRANSCRIPTASE (CHAIN B); CHAIN: B; ANTIBODY (LIGHT CHAIN); CHAIN: L; ANTIBODY (HEAVY CHAIN); CHAIN: H; DNA (5'- CHAIN: T; DNA (5'- CHAIN: P;	HIV-I REVERSE TRANSCRIPTASE (CHAIN A); CHAIN: A; HIV-I REVERSE TRANSCRIPTASE (CHAIN B); CHAIN: B; ANTIBODY (LIGHT CHAIN); CHAIN: L; ANTIBODY (HEAVY CHAIN); CHAIN: H; DNA (5'- CHAIN: T; DNA (5'- CHAIN: P;	REVERSE TRANSCRIPTASE HIV-1 REVERSE TRANSCRIPTASE (AMINO- TERMINAL HALF) (FINGERS 1HAR 3 AND PALM SUBDOMAINS) (RT216) (E.C.2.7.7.49) 1HAR 4	MMLV REVERSE TRANSCRIPTASE; IMML 4 CHAIN: NULL; IMML 5	MMLV REVERSE TRANSCRIPTASE; IMML 4 CHAIN: NULL; IMML 5	HIV-1 REVERSE TRANSCRIPTASE; 1RTH 4 CHAIN: A, B; 1RTH 5	HIV-1 REVERSE TRANSCRIPTASE; 1RTH 4
SEQFOL D score					199.34		
PMF score		0.99	1.00	1.00		1.00	1.00
Verify score		-0.13	0.05	0.36		0.00	-0.17
Psi Blast		8.5e-98	3.4e-65	1e-59	16-59	0	0
END AA		899	551	570	571	899	899
STAR T AA		341	341	326	326	341	345
CHAI N ID		m				<	В
EDB TI		1691	1har	1mm1	1mm1	lrth	III
SEQ NO		1454	1454	1454	1454	1454	1454

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PDB annotation	TRANSCRIPTASE 1RTH 15	NUCLEOTIDYLTRANSFERASE HIV-1 RT; IVRT 6 HIV-1 REVERSE TRANSCRIPTASE 1VRT 15	NUCLEOTIDYLTRANSFERASE HIV-1 RT; IVRT 6 HIV-1 REVERSE TRANSCRIPTASE IVRT 15			٠	STRUCTURAL GENOMICS HYPOTHETICAL PROTEIN, METHANOCOCCUS JANNASCHII		,	GROWTH FACTOR INSULIN-LIKE GROWTH FACTOR-1, GROWTH FACTOR, NMR, PROTEIN 2 STRUCTURE, DISTANCE GEOMETRY	OXIDOREDUCTASE FERROCYTOCHROME CLOXYGEN
Coumpound	CHAIN: A, B; 1RTH 5	HIV-1 REVERSE TRANSCRIPTASE; 1VRT 4 CHAIN: A B: 1VRT 5	HIV-I REVERSE TRANSCRIPTASE; IVRT 4 CHAIN: A, B; IVRT 5	NUCLEOTIDYLTRANSFERASE REVERSE TRANSCRIPTASE (E.C.2.7.7.49) 3HVT 3	NUCLEOTIDYLTRANSFERASE REVERSE TRANSCRIPTASE (E.C.2.7.7.49) 3HVT 3		MJ0882; CHAIN: A;	GROWTH FACTOR INSULIN- LIKE GROWTH FACTOR II (IGF- II, IGF-2) 1IGL 3 (NMR, 20 STRUCTURES) 1IGL 4 1IGL 78	GROWTH FACTOR INSULIN- LIKE GROWTH FACTOR II (IGF- II, IGF-2) IIGL 3 (NMR, 20 STRUCTURES) IIGL 4 IIGL 78	INSULIN-LIKE GROWTH FACTOR I; CHAIN: A;	CYTOCHROME COXIDASE; CHAIN: A, B, C, D, E, F, G, H, I, J,
SEQFOL D score					84.10				108.25		<u> </u>
PMF		1.00	1.00	99.0			-0.08	00'1		1.00	1.00
Verify score		-0.04	-0.09	-0.11			-0.00	0.37		-0.15	0.33
Psi Blast		0	0	3.4e-100	3.4e-100		5.1e-13	6.8e-25	6.8e-25	4.5e-25	6.8e-37
END AA		899	899	899	672		135	94	94	93	132
STAR T AA		345	345	342	342		9	25	25	16	46
CHAI		∀	В	В	Ф		₹			A	丑
PDB ID		lvrt	lvrt	3hvt	3hvt		Idus	ligl	ligl	3lri	2000
SEQ NO:		1454	1454	1454	1454		1455	1456	1456	1456	1458

PDB annotation	OXIDOREDUCTASE; OXIDOREDUCTASE, CYTOCHROME(C)-OXYGEN, CYTOCHROME C2 OXIDASE	1, 1, FERROCYTOCHROME CLOXYGEN OXIDOREDUCTASE; OXIDOREDUCTASE, CYTOCHROME(C)-OXYGEN, CYTOCHROME C 2 OXIDASE	THE POST OF THE PO	CONTRACTION MUSICLE CONTRACTION CALCUM ACTIVATED, TROPONIN, E-F HAND 2 CALCUM-RINDING PROTEIN	TRANSFERASE IL-2-INDUCIBLE T- CELL KINASE; TRANSFERASE, REGULATORY INTRAMOLECULAR COMPLEX, KINASE	OXIDOREDUCTASE PDZ DOMAIN, NNOS, NITRIC OXIDE SYNTHASE	PEPTIDE RECOGNITION PEPTIDE RECOGNITION, PROTEIN LOCALIZATION	METAL BINDING PROTEIN CAPPING PROTEIN, CALCIUM-BINDING, DUPLICATION, REPEAT, SH3 2 DOMAIN, CYTOSKELETON	
Coumpound	K, L, M, N, O, P, Q,	CYTOCHROME C OXIDASE; CHAIN: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q,		IKOPOMIN C, CHAIN: A, B,	ITK; CHAIN: NULL;	NEURONAL NITRIC OXIDE SYNTHASE; CHAIN: A; HEPTAPEPTIDE; CHAIN: B;	PSD-95; CHAIN: A; CRIPT; CHAIN: B;	SPECTRIN ALPHA CHAIN; CHAIN: A;	SIGNAL TRANSDUCTION PROTEIN GROWTH FACTOR RECEPTOR-BOUND PROTEIN 2 (GRB2, N-TERMINAL 1GBR 3
SEQFOL D score		115.24							
PMF score				00.1	0.29	0.87	0.92	0.54	0.13
Verify score				5.04 4	0.01	-0.14	0.28	-0.25	-0.16
Psi Blast		6.8e-37		600.0	3e-11	le-18	3.4e-16	3e-12	4.5e-11
END		132	,	9	408	365	341	392	408
STAR T AA		46			332	248	248	334	340
CHAI N ID		a		∢		4	4	A	∢
PDB ID		20cc		lavs	lawj	1b8q	1be9	1g2b	1gbr
SEQ NO.		1458		1439	1459	1459	1459	1459	1459

PDB annotation					CYTOKINE LCF; CYTOKINE, LYMPHOCYTE CHEMOATTRACTANT FACTOR, PDZ DOMAIN	KINASE HCASK, GLGF REPEAT, DHR; PDZ DOMAIN, NEUREXIN, SYNDECAN, RECEPTOR CLUSTERING, KINASE	KINASE HCASK, GLGF REPEAT, DHR; PDZ DOMAIN, NEUREXIN, SYNDECAN, RECEPTOR CLUSTERING, KINASE	SIGNAL TRANSDUCTION HDLG, DHR3 DOMAIN; SIGNAL TRANSDUCTION, SH3 DOMAIN, REPEAT
Coumpound	WITH SOS-A PEPTIDE IGBR 4 (NMR, 29 STRUCTURES) IGBR 5	ADAPTOR PROTEIN CONTAINING SH2 AND SH3 GROWTH FACTOR RECEPTOR- BOUND PROTEIN 2 (GRB2) IGFC 3 (C-TERMINAL SH3 DOMAIN) (NMR, MINIMIZED MEAN STRUCTURE) IGFC 4	TRANSFERASE GUANYLATE KINASE (E.C.2.7.4.8) COMPLEX WITH 1GKY 3 GUANOSINE MONOPHOSPHATE 1GKY 4	TRANSFERASE GUANYLATE KINASE (E.C.2.7.4.8) COMPLEX WITH 1GKY 3 GUANOSINE MONOPHOSPHATE 1GKY 4	INTERLEUKIN 16; CHAIN: NULL;	HCASKLIN-2 PROTEIN; CHAIN: A, B;	HCASK/LIN-2 PROTEIN; CHAIN: A, B;	HUMAN DISCS LARGE PROTEIN; CHAIN: NULL;
SEQFOL D score			146.00					
PMF		0.66		1.00	0.95	1.00	0.98	96.0
Verify score		0.36		0.80	0.31	0.19	0.07	0.19
Psi Blast		1e-10	1e-68	1e-68	1.1e-16	3e-17	3.4e-16	3.4e-14
END AA		408	663	299	345	337	338	342
STAR T AA		349	479	480	253	254	257	253
CHAI N ID						V	V	
PDB TD		1gfc	1gky	1gky	1116	lkwa	Ikwa	1pdr
SEQ EQ		1459	1459	1459	1459	1459	1459	1459

PDB annotation	CIRCULAR PERMUTANT PWT; CIRCULAR PERMUTANT, SH3 DOMAIN, CYTOSKELETON	OXIDOREDUCTASE BETA-FINGER	MEMBRANE PROTEIN/OXIDOREDUCTASE BETA- FINGER, HETERODIMER	CYTOSKELETON CYTOSKELETON, MEMBRANE, SH3 DOMAIN	TYROSINE-PROTEIN KINASE BRUTONS TYROSINE KINASE, B CELL PROGENITOR KINASE, TRANSFERASE, TYROSINE- PROTEIN KINASE, PHOSPHORYLATION, 2 SH3 DOMAIN	SIGNAL TRANSDUCTION PROTEIN SRC-HOMOLOGY 3 (SH3) DOMAIN, PEPTIDE-BINDING PROTEIN, ISEM 18 2 GUANINE NUCLEOTIDE EXCHANGE FACTOR ISEM 19	CYTOSKELETON CAPPING PROTEIN, CALCIUM-BINDING, DUPLICATION, REPEAT, 2 SH3 DOMAIN, CYTOSKELETON		TRANSFERASE ATP:AMP.
Coumpound	ALPHA SPECTRIN; CHAIN: NULL;	NEURONAL NITRIC OXIDE SYNTHASE (RESIDUES 1-130); CHAIN: A;	ALPHA-I SYNTROPHIN (RESIDUES 77-171); CHAIN: A; NEURONAL NITRIC OXIDE SYNTHASE (RESIDUES 1-130); CHAIN: B;	ALPHA II SPECTRIN; CHAIN: A;	TYROSINE-PROTEIN KINASE BTK; CHAIN: A;	SEM-5; 1SEM 3 CHAIN: A, B; 1SEM 5 10 RESIDUE PROLINE- RICH PEPTIDE FROM MSOS 1SEM 8 CHAIN: C, D ISEM 10	ALPHA-SPECTRIN; CHAIN: NULL;	TRANSFERASE URIDYLATE KINASE (E.C.2.74) COMPLEXED WITH ADP AND AMP I UKZ 3.	ADENYLATE KINASE; CHAIN:
SEQFOL D score									
PMF score	0.58	0.98	1.00	0.48	0.47	0.41	0.40	69.0	0.22
Verify score	0.46	0.13	0.24	0.10	0.41	-0.10	0.22	0.10	0.02
Psi Blast	4.5e-11	1.5e-17	4.5e-16	3e-11	1.3e-10	1.5e-10	6e-13	1.4e-07	1.2e-05
END	408	362	336	408	408	408	392	629	662
STAR T AA	347	254	250	350	349	350	334	477	482
CHAI N ID		V	₹	¥	¥	Ą			Ą
PDB TD	lpwt	Iqau	Iqav	1qkw	1qly	lsem	Itud	lukz	1zak
SEQ EQ	1459	1459	1459	1459	1459	1459	1459	1459	1459

PDB	ir i Z	CHAI	STAR T AA	END	Psi Blast	Verify	PMF	SEQFOL D score	Coumpound	PDB annotation
		!							A, B;	PHOSPHOTRANSFERASE,
3adk	3		475	299	90-96	0.12	0.98		TRANSFERASE(PHOSPHOTRA NSFERASE) ADENYLATE KINASE (E.C.2.743) 3ADK 4	INANGFERAND
3pdz A	1		253	332	1.5e-13	0.32	1.00		TYROSINE PHOSPHATASE (PTP-BAS, TYPE I); CHAIN: A;	HYDROLASE PDZ DOMAIN, HUMAN PHOSPHATASE, HPTPIE, PTP-BAS, SPECIFICITY 2 OF BINDING
3tmk (ပ		479	995	9e-10	0.28	0.04		THYMIDYLATE KINASE; CHAIN: A, B, C, D, E, F, G, H;	KINASE KINASE, PHOSPHOTRANSFERASE
4tmk	∢		478	799	7.5e-16	-0.03	0.19		THYMIDYLATE KINASE; CHAIN: A;	TRANSFERASE ATP:DTMP PHOSPHOTRANSFERASE
1bg3	⋖		-	498	0	1.13	1.00		HEXOKINASE; CHAIN: A, B;	HEXOKINASE ATP/:D-HEXOSE-6- PHOSPHOTRANSFERASE; HEXOKINASE, PHOSPHOTRANSFERASE
15g3	⋖		-	499	0			459.01	HEXOKINASE; CHAIN: A, B;	HEXOKINASE ATP/:D-HEXOSE-6- PHOSPHOTRANSFERASE; HEXOKINASE, PHOSPHOTRANSFERASE
lcza	z			501	0	1.07	1.00		HEXOKINASE TYPE I; CHAIN: N;	TRANSFERASE STRUCTURALLY HOMOLOGOUS DOMAINS
1a0j	<		30	239	1.4e-80	0.88	1.00		TRYPSIN; CHAIN: A, B, C, D;	SERINE PROTEASE SERINE PROTEINASE, TRYPSIN, HYDROLASE
1a0j	∢ ∣		30	239	1.4e-80			104.84	TRYPSIN; CHAIN: A, B, C, D;	SERINE PROTEASE SERINE PROTEINASE, TRYPSIN, HYDROLASE
1a01	⋖		30	233	1.7e-74	0.50	1.00		BETA-TRYPTASE; CHAIN: A, B, C, D;	SERINE PROTEINASE TRYPSIN-LIKE SERINE PROTEINASE, TETRAMER, HEPARIN, ALLERGY, 2 ASTHMA
1a0	⋖		30	239	1.7e-74			97.00	BETA-TRYPTASE; CHAIN: A, B,	SERINE PROTEINASE TRYPSIN-LIKE

PDB annotation	SERINE PROTEINASE, TETRAMER, HEPARIN, ALLERGY, 2 ASTHMA	SERINE PROTEASE PPE; SERINE PROTEASE, HYDROLASE	SERINE PROTEASE PPE; SERINE PROTEASE, HYDROLASE	SERINE PROTEASE HYDROLASE, SERINE PROTEASE, DIGESTION, PANCREAS, ZYMOGEN, 2 SIGNAL, MULTIGENE FAMILY	HYDROLASE (SERINE PROTEASE) MYELOBLASTIN; HYDROLASE, SERINE PROTEASE, GLYCOPROTEIN, ZYMOGEN, SIGNAL			
Coumpound	C, D;	ELASTASE; CHAIN: P;	ELASTASE; CHAIN: P;	TRYPSIN; CHAIN: NULL;	PR3; CHAIN: A, B, C, D;	COMPLEX(PROTEINASE/INHIB ITOR) TRYPSIN (E.C.3.4.21.4) COMPLEXED WITH INHIBITOR FROM BITTER IMCT 3 GOURD IMCT 4	COMPLEX(PROTEINASE/INHIB ITOR) TRYPSIN (E.C.3.4.21.4) COMPLEXED WITH INHIBITOR FROM BITTER IMCT 3 GOURD IMCT 4	HYDROLASE(SERINE PROTEINASE) HUMAN LEUKOCYTE ELASTASE (HLE) (NEUTROPHIL ELASTASE (HNE)) IPPF 3 (E.C.3.4.21.37) COMPLEX WITH THE THIRD DOMAIN OF TURKEY IPPF 4 OVOMUCOID INHIBITOR (OMTKY3) IPPF 5
SEQFOL D score			115.93	98.94	200.42		103.86	315.52
PMF		1.00				1.00		
Verify score		0.64				0.74		
Psi Blast		1.7e-75	1.7e-75	1.7e-79	6e-71	8.5e-83	8.5e-83	1e-65
END		239	239	239	237	239	239	237
STAR		30	30	30	30	30	30	30
CHAI N ID		<u>-</u>	<u>а</u> ,		A	A	Ą	ы
PDB ID		1 bru	1bru	1dpo	<u>1</u> 2	1mct	lmct	Jddj
SEQ NO:		1464	1464	1464	1464	1464	1464	1464

PDB annotation	HYDROLASE MICROPLASMINOGEN, SERINE PROTEASE, ZYMOGEN, CHYMOTRYPSIN 2 FAMILY, HYDROLASE	GROWTH FACTOR 1S NGF; GROWTH FACTOR (BETA-NGF), HYDROLASE - SERINE PROTEINASE 2 (GAMMA-NGF), INACTIVE SERINE PROTEINASE (ALPHA-NGF)	GROWTH FACTOR 7S NGF; GROWTH FACTOR (BETA-NGF), HYDROLASE - SERINE PROTEINASE 2 (GAMMA-NGF), INACTIVE SERINE PROTEINASE (ALPHA-NGF)	COMPLEX (SERINE PROTEASE/INHIBITOR) TRYPSIN INHIBITOR; SERINE PROTEASE, INHIBITOR, COMPLEX, METAL BINDING SITES, 2 PROTEIN ENGINEERING, PROTEASE-SUBSTRATE INTERACTIONS, 3 METALLOPROTEINS		
Coumpound	PLASMINOGEN; CHAIN: A, B, C, D;	NERVE GROWTH FACTOR; CHAIN: A, B, G, X, Y, Z;	NERVE GROWTH FACTOR; CHAIN: A, B, G, X, Y, Z;	ECOTIN; CHAIN: A; ANIONIC TRYPSIN; CHAIN: B;	HYDROLASE (SERINE PROTEINASE) TRYPSIN (E.C.3.4.21.4) COMPLEXED WITH THE INHIBITOR ITRN 3 DIISOPROPYL- FLUOROPHOSPHOFLUORIDAT E (DFP) ITRN 4 HUMAN TRYPSIN, DFP INHIBITED ITRN 6	HYDROLASE (SERINE PROTEINASE) TRYPSIN
SEQFOL D score	117.30		97.78			100.94
PMF score		1.00		00:1	1.00	
Verify score		0.65	·	0.45	0.79	
Psi Blast	3.4e-71	3.4e-72	3.4e-72	1.7e-78	5.1e-80	5.1e-80
END AA	239	239	240	239	239	240
STAR T AA	12	30	30	30	30	30
CHAI N ID	₹	ت ت	Ð	ω	∢	∢
PDB ID	Iqrz	lsgf	lsgf	lsfw	EL.	15
SEQ NO:	1464	1464	1464	1464	1464	1464

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PDB annotation				SERINE PROTEASE HYDROLASE, SERINE PROTEASE, DIGESTION, PANCREAS, 2 ZYMOGEN, SIGNAL	SERINE PROTEASE HYDROLASE, SERINE PROTEASE, DIGESTION, PANCREAS, 2 ZYMOGEN, SIGNAL	SIGNAL TRANSDUCTION SIGNAL TRANSDUCTION	SIGNAL TRANSDUCTION SIGNAL TRANSDUCTION	COMPLEX (SIGNAL TRANSDUCTION/PEPTIDE) COMPLEX, 14-3-3, PHOSPHOPEPTIDE, SIGNAL TRANSDUCTION	COMPLEX (SIGNAL
Coumpound	(E.C.3.4.21.4) COMPLEXED WITH THE INHIBITOR 1TRN 3 DIISOPROPYL- FLUOROPHOSPHOFLUORIDAT E (DFP) 1TRN 4 HUMAN TRYPSIN, DFP INHIBITED 1TRN 6	HYDROLASE(SERINE PROTEINASE) TRYPSIN (E.C.3.4.21.4) COMPLEXED WITH BENZAMIDINE INHIBITOR 2TBS 3	HYDROLASE(SERINE PROTEINASE) TRYPSIN (E.C.3.4.21.4) COMPLEXED WITH BENZAMIDINE INHIBITOR 21BS 3	BETA TRYPSIN; CHAIN: NULL;	BETA TRYPSIN; CHAIN: NULL;	14-3-3 PROTEIN ZETA; CHAIN: A, B, C, D;	14-3-3 PROTEIN ZETA; CHAIN: A, B, C, D;	14-3-3 PROTEIN ZETA; CHAIN: A, B; PHOSPHOPEPTIDE; CHAIN: Q, R	14-3-3 PROTEIN ZETA; CHAIN:
SEQFOL D score		,	97.32		99.14	234.97			284.35
PMF score		1.00		1.00	į		1.00	1.00	
Verify score		0.65		0.73			0.55	0.59	
Psi Blast		5.1e-79	5.1e-79	1.7e-76	1.7e-76	1.7e-98	1.7e-98	0	0
END AA		237	239	239	239	229	230	232	232
STAR T AA		30	30	30	30	8	ب	£	3
CHAI N ID						4	¥	₹	A
PDB ID		2tbs	2tbs	5рф	Sptp	1a40	1a4o	1qja	Iqja
SEQ ID NO:		1464	1464	1464	1464	1470	1470	1470	1470

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PDB annotation	TRANSDUCTION/PEPTIDE) COMPLEX, 14-3-3, PHOSPHOPEPTIDE, SIGNAL TRANSDUCTION		TRANSMEMBRANE PROTEIN COLICIN, BACTERIOCIN, ION CHANNEL FORMATION, TRANSMEMBRANE 2 PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22 TANDEM 3-HELIX COLLED-COILS,	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22 TANDEM 3-HELIX COILED-COILS.	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS,	STRUCTURAL PROTEIN	ENDOCYTOSIS/EXOCYTOSIS	SYNAPTOTAGMIN ASSOCIATED 35	KDA PROTEIN, P35A, THREE HELIX	BUNDLE	ENDOCYTOSIS/EXOCYTOSIS	SYNAPIOIAGMIN ASSOCIATED 35	KDA PROTEIN, P35A, THREE HELIX	BUNDLE	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL,
Coumpound	A, B; PHOSPHOPEPTIDE; CHAIN: Q, R		COLICIN IA; CHAIN: NULL;	ALPHA SPECTRIN; CHAIN: A, B. C:			ALPHA SPECTRIN; CHAIN: A,	် က်			ALPHA SPECTRIN; CHAIN: A,	B, C;				SYNTAXIN-1A; CHAIN: A, B, C;				SYNTAXIN-1A; CHAIN: A, B, C;				HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;
SEQFOL D score	·		133.38									•												
PMF score				0.03			-0.17				0.39					-0.13				-0.15				0.11
Verify				-0.15	•		0.12				0.05					0.19				0.01				0.02
Psi Blast			3.4e-08	6e-15			7.5e-16				3e-20		·			1.5e-09			ļ	4.5e-08			,	6e-19
END			621	322			363				248					139				214				426
STAR T AA			48	117			152				38					23				32			١	196
CHAI N ID				¥			A				A					∢				∢				<
PDB ID		_	lcii	Icun			lcun				1cun					lez3			,	lez3				nabı
SEQ ID NO:			1471	1471			1471				1471					1471				1471				1471

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PDB annotation	CONTRACTILE PROTEIN	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	TRANSCRIPTION REGULATION SIGMA70; RNA POLYMERASE SIGMA FACTOR, TRANSCRIPTION REGULATION		COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX		STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COILED-COILS,	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COLLED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS,
Coumpound		HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	RNA POLYMERASE PRIMARY SIGMA FACTOR; CHAIN: NULL;		NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;		ALPHA SPECTRIN; CHAIN: A, B, C;		ALPHA SPECTRIN; CHAIN: A, B, C;	ALPHA SPECTRIN; CHAIN: A, B, C;	ALPHA SPECTRIN; CHAIN: A, B, C;
SEQFOL D score											
PMF score		-0.02	0.03		0.04		0.15		61.0	0.55	0.35
Verify score		60.0	-0.11		-0.56		-0.18		-0.12	-0.05	0.19
Psi Blast		1.5e-15	60-99		0.0045		3e-06		9e-13	1.5e-15	4.5e-15
END AA		487	307		77		337		458	289	724
STAR T AA		217	32		23		150		241	460	506
CHAI N ID		٧			ш		4		¥	¥	4
PDB ID		Iquu	Isig		lnfi		1cun		Icun	1cun	Icun
SEQ ID NO:		1471	1471		1475	į	1476		1476	1476	1476

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PDB annotation	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS,	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS,	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS.	STRUCTURAL PROTEIN	ENDOCYTOSIS/EXOCYTOSIS	NSEC1; PROTEIN-PROTEIN	COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS	NSEC1; PROTEIN-PROTEIN	COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS	NSEC1; PROTEIN-PROTEIN	COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS	NSEC1; PROTEIN-PROTEIN	COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS	SYNAPTOTAGMIN ASSOCIATED 35	KDA PROTEIN, P35A, THREE HELIX	BUNDLE	ENDOCYTOSIS/EXOCYTOSIS	SYNAPTOTAGMIN ASSOCIATED 35
Conmpound		ALPHA SPECTRIN; CHAIN: A,	, c			ALPHA SPECTRIN; CHAIN: A,	В, С;				ALPHA SPECTRIN; CHAIN: A,	: : : :				SYNTAXIN BINDING PROTEIN	1; CHAIN: A; SYNTAXIN 1A;	CHAIN: B;	SYNTAXIN BINDING PROTEIN	1; CHAIN: A; SYNTAXIN 1A;	CHAIN: B;	SYNTAXIN BINDING PROTEIN	1; CHAIN: A; SYNTAXIN 1A;	CHAIN: B;	SYNTAXIN BINDING PROTEIN	1; CHAIN: A; SYNTAXIN 1A;	CHAIN: B;	SYNTAXIN-1A; CHAIN: A, B, C;				SYNTAXIN-1A; CHAIN: A, B, C;	
SEQFOL D score																					i												
PMF		0.42				60.0					-0.14					-0.05			0.01			90.0			0.03			0.03				90.0	
Verify score		0.15				0.08					-0.00					0.03			-0.30			-0.21			-0.19			-0.26				0.00	
Psi Blast		96-17				1.2e-13					6e-12					6e-16			1.5e-16			6e-18			6e-13			3e-07				1.5e-11	
END		794				820					916			_		423			597			711			911			363			[719	
STAR T AA		583				632					721					216			380			503			700			256			3	593	
CHAI N ID		Ą				Ą					Ą	_				В			В			В			В			Ą				٧	
EDB ID		lcun				1cun					lcun					1dn1			1dn1			Idni			1dn1			lez3			,	lez3	
SE SE		1476				1476					1476					1476			1476			1476			1476			1476				1476	

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PDB annotation	ALPHA-BETA FOLD RNA-BINDING MOTIF	IMMUNE SYSTEM KH DOMAIN, ALPHA-BETA FOLD RNA-BINDING MOTIF	IMMUNE SYSTEM KH DOMAIN, ALPHA-BETA FOLD RNA-BINDING MOTIF	POLYRIBONUCLEOTIDE TRANSFERASE POLYNUCLEOTIDE PHOSPHORYLASE, GUANOSINE POLYRIBONUCLEOTIDE TRANSFERASE, ATP:GTP 2 DIPHOSPHOTRANSFERASE, RNA PROCESSING, RNA DEGRADATION	POLYRIBONUCLEOTIDE TRANSFERASE POLYNUCLEOTIDE PHOSPHORYLASE, GUANOSINE POLYRIBONUCLEOTIDE TRANSFERASE, ATP-GTP DIPHOSPHOTRANSFERASE, 2 RNA PROCESSING, RNA DEGRADATION	RNA BINDING PROTEIN/RNA ASTROCYTIC NOVA-LIKE RNA- BINDING PROTEIN; KH DOMAIN, ALPHA-BETA FOLD, RNA-BINDING MOTIF, PROTEIN/RNA 2 STRUCTURE	RNA BINDING PROTEIN KH3; HNRNP K, KH DOMAIN, THREE- DIMENSIONAL STRUCTURE, NMR,
Coumpound	NEUROONCOLOGICAL VENTRAL ANTIGEN 2; CHAIN: A, B, C, D;	RNA-BINDING NEUROONCOLOGICAL VENTRAL ANTIGEN 2; CHAIN: A, B, C, D;	RNA-BINDING NEUROONCOLOGICAL VENTRAL ANTIGEN 2; CHAIN: A, B, C, D;	GUANOSINE PENTAPHOSPHATE SYNTHETASE; CHAIN: A;	GUANOSINE PENTAPHOSPHATE SYNTHETASE; CHAIN: A;	RNA-BINDING PROTEIN NOVA-2; CHAIN: A, B; 20-MER RNA HAIRPIN; CHAIN: C, D;	HNRNP K; CHAIN: A;
SEQFOL D score							
PMF score		0.94	0.89	1.00	1.00	0.72	0.36
Verify score		0.59	0.60	0.75	0.49	0.50	0.36
Psi Blast		3e-06	1e-05	0	0	0.00014	0.0014
END AA		299	299	613	739	675	671
STAR T AA		609	609	51	51	609	610
CHAI		ပ	Q	∢	∢	¥.	¥
PDB CD		1dtj	1dtj	1e3h	1e3p	lec6	1khm
SEQ EQ		1479	1479	1479	1479	1479	1479

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PDB annotation	C-MYC, 2 DIPOLAR COUPLING, DNA-BINDING, RNA-BINDING, RNA BINDING 3 PROTEIN	SI RNA-BINDING DOMAIN POLYRIBONUCLEOTIDE NUCLEOTIDYLTRANSFERASE, SI RNA-BINDING DOMAIN, POLYNUCLEOTIDE PHOSPHORYLASE 2 (PNPASE)	RIBONUCLEOPROTEIN RNA- BINDING PROTEIN I VIG 19	GENE REGULATION APO PROTEIN	GENE REGULATION APO PROTEIN	CELL CYCLE CDC6P; CDC6, CDC18, ORC1, AAA PROTEIN, DNA REPLICATION INITATION 2 FACTOR, CELL CYCLE CONTROL FACTOR	HELICASE DNA REPAIR, DNA REPLICATION, SOS RESPONSE, HELICASE, ATP- 2 BINDING, DNA- BINDING	ACTIN-BINDING PROTEIN ACTIN- BINDING PROTEIN, CALCIUM- BINDING, PHOSPHORYLATION	STRUCTURAL PROTEIN DYSTROPHIN, MUSCULAR DYSTROPHY, CALPONIN HOMOLOGY DOMAIN, 2 ACTIN- BINDING, UTROPHIN
Coumpound		PNPASE; CHAIN: NULL;	VIGILIN; IVIG 5 CHAIN: NULL; IVIG 6	EXCINUCLEASE UVRABC COMPONENT UVRB; CHAIN: A;	EXCINUCLEASE UVRABC COMPONENT UVRB; CHAIN: A;	CELL DIVISION CONTROL PROTEIN 6; CHAIN: A, B;	PCRA (SUBUNIT); CHAIN: A; PCRA (SUBUNIT); CHAIN: B; PCRA (SUBUNIT); CHAIN: C; PCRA (SUBUNIT); CHAIN: D;	T-FIMBRIN; CHAIN: NULL;	DYSTROPHIN; CHAIN: A, B, C, D;
SEQFOL D score									
PMF score		1.00	0.30	0.00	0.03	0.54	0.83	0.96	0.68
Verify score		0.78	0.46	-0.14	-0.21	-0.14	-0.19	0.28	0.54
Psi Blast		5.1e-21	1e-06	1.7e-06	600.0	0.00015	1.5e-11	6.8e-26	5.1e-28
END		751	299	528	602	492	524	122	120
STAR T AA		675	603	442	447	427	444	4	2
CHAI N ID				4	¥	∢	٧		⋖
PDB UD		lsro	lvig	x6p1	1d9x	1fnn	1qhg	laoa	1dxx
SEQ DO: NO:		1479	1479	1480	1480	1480	1480	1484	1484

PDB annotation	STRUCTURAL PROTEIN CALPONIN HOMOLOGY DOMAIN, DOMAIN SWAPPING, ACTIN BINDING, 2 UTROPHIN, DYSTROPHIN, STRUCTURAL PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-BINDING PROTEIN/DNA)	TRANSCRIPTION REGULATION PROTO-ONCOGENE, NUCLEAR BODIES (PODS), LEUKEMIA, 2 TRANSCRIPTION REGULATION		LIGASE CBL, UBCH7, ZAP-70, E2, UBIQUITIN, E3, PHOSPHORYLATION, 2 TYROSINE KINASE, UBIQUITINATION, PROTEIN DEGRADATION,	METAL BINDING PROTEIN RING FINGER PROTEIN MATI; RING
Coumpound	UTROPHIN ACTIN BINDING REGION; CHAIN: A, B;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	TRANSCRIPTION FACTOR PML; CHAIN: NULL;	VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN) 1CHC 3 (NMR, 1 STRUCTURE) 1CHC 4	SIGNAL TRANSDUCTION PROTEIN CBL; CHAIN: A; ZAP- 70 PEPTIDE; CHAIN: B; UBIQUITIN-CONJUGATING ENZYME E12-18 KDA UBCH7; CHAIN: C;	CDK-ACTIVATING KINASE ASSEMBLY FACTOR MATI;
SEQFOL D score							
PMF	0.39	0.01	0.41	0.00	0.29	0.15	0.62
Verify	0.33	-0.10	0.08	-0.38	-0.35	-0.24	0.26
Psi Blast	3.4e-26	0.0045	0.00045	0.0001	3.4e-10	5.1e-09	5.1e-06
END	121	953	926	377	378	381	387
STAR T AA	8	998	873	339	336	336	336
CHAI	4	4	4			∀	4
PDB UI	lqag	11f6	2gli	1 Бог	1chc	Ifbv	1g25
SEQ NO.	1484	1486	1486	1487	1487	1487	1487

PDB annotation	FINGER (C3HC4)	DNA-BINDING PROTEIN V(D)J RECOMBINATION ACTIVATING PROTEIN I; RAGI, V(D)J RECOMBINATION, ANTIBODY, MAD, RING FINGER, 2 ZINC BINUCLEAR CLUSTER, ZINC FINGER, DNA-BINDING PROTEIN	HEXAMERIZATION DOMAIN HEXAMERIZATION DOMAIN, ATPASE TRANSPORT	CITA DEPONIE TIOT IV. LIOT II	CHAPERONE HSLV; HSLU CHAPERONE, HSLVU, CLPQY, AAA-	ATPASE, ATP-DEPENDENT 2	PROTEOLYSIS, PROTEASOME	CHAPERONE HSLV; HSLU	CHAPERONE, HSLVU, CLPQY, AAA-	ATPASE, ATP-DEPENDENT 2	PROTEOLYSIS, PROTEASOME	HYDROLASE ARSA ATPASE; P-	LOOP, ANTIMONITE BINDING SITE, ATP BINDING SITE	CELL CYCLE CDC6P: CDC6, CDC18.	ORCI, AAA PROTEIN, DNA	REPLICATION INITATION 2	FACTOR, CELL CYCLE CONTROL	FACTOR	CHAPERONE AAA-ATPASE, CLPY,	ATP-DEPENDENT PROTEOLYSIS	CHAPERONE AAA-ATPASE, CLPY,	ATP-DEPENDENT PROTEOLYSIS	TRANSFERASE SHIKIMATE KINASE,	PHOSPHORYL TRANSFER, ADP,
Coumpound	CHAIN: A;	RAGI; CHAIN: NULL;	N-ETHYLMALEIMIDE- SENSITIVE FUSION PROTEIN; CHAIN: A.	TITAT OLIOON BROTTERI IIG. IV.	CHAIN: A, B, C, D; HEAT	SHOCK PROTEIN HSLU;	CHAIN: E, F;	HEAT SHOCK PROTEIN HSLV;	CHAIN: A, B, C, D; HEAT	SHOCK PROTEIN HSLU;	CHAIN: E, F;	ARSENITE-TRANSLOCATING	ATPASE; CHAIN: A;	CELL DIVISION CONTROL	PROTEIN 6; CHAIN: A, B;				HEAT SHOCK PROTEIN HSLU;	CHAIN: A;	HEAT SHOCK PROTEIN HSLU;	CHAIN: A;	SHIKIMATE KINASE; CHAIN:	A, B;
SEQFOL D score																								
PMF score		0.06	-0.18	2,0	- G.13			0.05				0.28		0.45	!				0.94		0.04		0.49	!
Verify		0.10	0.11	100	10.0			-0.20				-0.39		0.15					0.46		-0.11		-0.53	
Psi Blast		3.4e-09	1.2e-11	0 62 17	21-96.8			1.5e-12				0.0015		1.2e-15					1.2e-37		1.2e-17		1.5e-05	
END		387	782	101	454			634				514		629					599		618		396	
STAR T AA		320	979	220	25%			339				82		344					330		339		369	
CHAI N ID			¥	þ	–			Э				Ą		₩.					∢		≺		∢	
EDB EI		1rmd	1d2n	700	£			1e94				1f48		1fnn					1g41		1g41		1shk	
SEQ NO:		1487	1490	9071	1430			1490				1490		1490					1490		1490		1490	

PDB annotation	SHIKIMATE 2 PATHWAY, P.LOOP PROTEIN, TRANSFERASE	PROTEIN TRANSPORT FIFTY-FOUR HOMOLOG, P48; FFH, SRP54, SIGNAL RECOGNITION PARTICLE, GTPASE, M DOMAIN, 2 RNA-BINDING, SIGNAL SEQUENCE-BINDING, HELIX-TURN-HELIX, 3 PROTEIN TARGETING, PROTEIN TRANSPORT	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	TRANSCRIPTION RNA 1P. RANGAP.	GTPASE-ACTIVATING PROTEIN FOR SPII, GTPASE-ACTIVATING	PROTEIN, GAP, RNAIP, RANGAP,	LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING.	HEMIHEDRAL TWINNING, 3	MEROHEDRY	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, FIGHE PICH PEDEATS	PANCREATIC STONE INHIBITOR PANCREATIC STONE INHIBITOR, LECTIN
Coumpound		FFH; CHAIN: A, B, C;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	GTPASE_ACTIVATING	PROTEIN RNA1_SCHPO; CHAIN: A. B:					RIBONUCLEASE INHIBITOR; CHAIN: NULL;	LITHOSTATHINE; CHAIN: NULL
SEQFOL D score											
PMF score		0.01	0.94	0.18	?					0.65	1.00
Verify		-0.24	0.10	0.03	}					0.33	0.82
Psi Blast		16-05	1.5e-48	6 80-27					•	3.4e-43	1e-42
END		537	394	301						393	166
STAR T AA		347	178	178						178	36
CHAI N ID	,	∢	∢	4	!						
PDB ID		2ffh	1a4y	1 vro	9					2bnħ	111
SEQ NO.		1490	1491	1401						1491	1495

PDB annotation	PANCREATIC STONE INHIBITOR PANCREATIC STONE INHIBITOR, LECTIN	PANCREATIC STONE INHIBITOR, PANCREATIC STONE INHIBITOR, LECTIN	METAL BINDING PROTEIN PANCREATIC STONE PROTEIN, PSP; PANCREATIC STONE INHIBITOR, LITHOSTATHINE	METAL BINDING PROTEIN PANCREATIC STONE PROTEIN, PSP; PANCREATIC STONE INHIBITOR, LITHOSTATHINE	METAL BINDING PROTEIN PANCREATIC STONE PROTEIN, PSP; PANCREATIC STONE INHIBITOR, LITHOSTATHINE	PROTEIN TRANSPORT HELIX. TURN-HELIX TPR-LIKE REPEAT, PROTEIN TRANSPORT	HYDROLASE SERCAI; ION PUMP, CALCIUM, MEMBRANE PROTEIN, P- TYPE ATPASE, ACTIVE 2 TRANSPORT	REPLICATION DNA NUCLEOTIDE EXCISION REPAIR, UVRABC, HELICASE, 2 HYPERTHERMOSTABLE PROTEIN	REPLICATION DNA NUCLEOTIDE EXCISION REPAIR, UVRABC,
Coumpound	LITHOSTATHINE; CHAIN: NULL	LITHOSTATHINE; CHAIN: NULL	LITHOSTATHINE; CHAIN: A;	LITHOSTATHINE; CHAIN: A;	LITHOSTATHINE; CHAIN: A;	VESICULAR TRANSPORT PROTEIN SEC17; CHAIN: A;	CALCIUM-TRANSPORTING ATPASE SARCOPLASMIC CHAIN: A;	DNA NUCLEOTIDE EXCISION REPAIR ENZYME UVRB; CHAIN: A;	DNA NUCLEOTIDE EXCISION REPAIR ENZYME UVRB;
SEQFOL D score		212.11			226.04			;	
PMF	1.00		1.00	1.00		-0.17	0.46	96.0	0.83
Verify score	0.82		0.77	0.77		0.14	-0.16	0.20	-0.10
Psi Blast	7.5e-43	7.5e-43	1e-44	6e-47	6e-47	1.1e-13	0	16-12	1.4e-19
END	991	166	166	166	991	634	713	540	516
STAR T AA	36	36	ឌ	ឌ	23	489		393	448
CHAI N ID			Ą	Ą	4	4	A	4	Ą
PDB CI	11it	THE THE	1qdd	Iqdd	lqdd	1qqe	leul	1c40	1c40
SEQ ID NO:	1495	1495	1495	1495	1495	1497	1498	1499	1499

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PDB annotation	HELICASE, 2 HYPERTHERMOSTABLE PROTEIN	HYDROLASE UVRB; MULTIDOMAIN PROTEIN	HYDROLASE UVRB; MULTIDOMAIN PROTEIN	GENE REGULATION APO PROTEIN	GENE REGULATION APO PROTEIN	TRANSLATION YEAST INITIATION FACTOR 4A, EIF4A; HELLCASE, INITIATION FACTOR 4A, DEAD-BOX PROTEIN	TRANSLATION EUKARYOTIC INITIATION FACTOR 4A; IF4A, HELICASE, DEAD-BOX PROTEIN	TRANSLATION EUKARYOTIC INITIATION FACTOR 4A; IF4A, HELICASE, DEAD-BOX PROTEIN	HELICASE HELICASE, RNA, HEPATITIS, HCV, ATPASE, NTPASE	GENE REGULATION EIF44; TRANSLATION INITIATION, SACCHAROMYCES CEREVISIAE, DEAD BOX 2 PROTEIN FAMILY	HELICASE RNA HELICASE, HEPATITIS C VIRUS, HCV, UNWINDING MECHANISM	CALCIUM-BINDING PROTEIN CALB; CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN
Coumpound	CHAIN: A;	EXCINUCLEASE ABC SUBUNIT B; CHAIN: A;	EXCINUCLEASE ABC SUBUNIT B; CHAIN: A;	EXCINUCLEASE UVRABC COMPONENT UVRB; CHAIN: A;	EXCINUCLEASE UVRABC COMPONENT UVRB; CHAIN: A;	EUKARYOTIC INITIATION FACTOR 4A; CHAIN: A;	YEAST INITIATION FACTOR 4A; CHAIN: A, B;	YEAST INITIATION FACTOR 4A; CHAIN: A, B;	HCV HELICASE; CHAIN: A, B;	TRANSLATION INITIATION FACTOR 4A; CHAIN: A;	RNA HELICASE; CHAIN: NULL	PROTEIN KINASE C (BETA); CHAIN: A, B;
SEQFOL D score												77.04
PMF score		0.19	0.80	0.09	0.76	0.86	1.00	1.00	0.22	1.00	0.04	
Verify		-0.57	0.17	-0.16	0.39	0.26	0.83	0.47	-0.18	0.55	-0.59	
Psi Blast		0.00068	8.5e-13	9e-29	3.4e-16	1.2e-43	3.4e-59	0	0.0003	5.le-56	1.5e-53	9e-25
END		223	540	531	528	558	340	558	325	340	522	137
STAR T AA		144	393	258	380	376	127	127	158	127	158	12
CHAI N ID		Ą	¥	¥	¥	Ą	∢	В	¥	¥		4
PDB CI		1d2m	1d2m	1d9x	149x	1fuk	1 fuu	1fuu	lhei	Iqde	8оћш	1a25
SEQ NO:		1499	1499	1499	1499	1499	1499	1499	1499	1499	1499	1502

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PDB annotation	CALCIUM-BINDING PROTEIN CALB; CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	CALCTUM-BINDING PROTEIN CALB; CALCTUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCTUM- BINDING PROTEIN	CALCIUM-BINDING PROTEIN CALB; CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	HYDROLASE CPLA2; PHOSPHOLIPASE, LIPID-BINDING, HYDROLASE	HYDROLASE CPLA2; PHOSPHOLIPASE, LIPID-BINDING, HYDROLASE	LIPID DEGRADATION PLC-D1; PHOSPHORIC DIESTER HYDROLASE, HYDROLASE, LIPID DEGRADATION, 2 TRANSDUCER, CALCIUM-BINDING, PHOSPHOLIPASE C, 3
Commonud	PROTEIN KINASE C (BETA); CHAIN: A, B;	PROTEIN KINASE C (BETA); CHAIN: A, B;	PROTEIN KINASE C (BETA); CHAIN: A, B;	SYNAPTOTAGMIN I; CHAIN: A;	SYNAPTOTAGMIN I; CHAIN: A;	CYTOSOLIC PHOSPHOLIPASE A2; CHAIN: A, B;	CYTOSOLIC PHOSPHOLIPASE A2; CHAIN: A, B;	PHOSPHOINOSITIDE-SPECIFIC PHOSPHOLIPASE C, CHAIN: A, B;
SEQFOL D score								
PMF score	0.54	1.00	0.90	0.35	0.10	0.65	0.45	0.24
Verify score	-0.05	0.42	0.62	0.04	0.36	0.07	0.29	0.34
Psi Blast	1.5e-26	9e-25	1.4e-24	3.4e-30	1.7e-28	1.3e-29	7.5e-24	3.4c-22
END AA	287	131	117	287	122	338	184	302
STAR T AA	167	17	18	167	19	184	22	183
CHAI N ID	Ą	Ą	A	V	4	4	¥	¥
869 E1	1a25	1a25	1825	Ibyn	Ibyn	1cjy	1cjy	1djx
SEQ B G S	1502	1502	1502	1502	1502	1502	1502	1502

	CIFIC	C-DI;	SE, LIPID	SDUCER,		CIFIC	C-DI;	רושוו אי	DUCER.	•		1	PROTEIN.	OTEIN,	PROTEIN		ŧ,	PROTEIN,	OTEIN,	PROTEIN		‡	PROTEIN,	OTEIN,	PROTEIN		AIC;	y, CALB	AIN;
PDB annotation	PHOSPHOINOSITIDE-SPECIFIC	LIPID DEGRADATION PLC-DI; PHOSPHORIC DIESTER	HYDROLASE, HYDROLASE, LIPID	DEGRADATION, 2 TRANSDUCER,	CALCIUM-BINDING,	PHOSPHOINOSITIDE-SPECIFIC	LIPID DEGRADATION PLC-DI;	FRUSFRUNC DIESTER HYDROTASE HYDROTASE TRID	DEGRADATION, 2 TRANSDUCER.	CALCIUM-BINDING,	PHOSPHOLIPASE C, 3	TRANSFERASE CALCITIM+	PHOSPHOLIPID BINDING PROTEIN.	CALCTUM-BINDING 2 PROTEIN	PHOSPHATIDYLSERINE, PROTEIN	KINASE C	TRANSFERASE CALCIUM++,	PHOSPHOLIPID BINDING PROTEIN,	CALCIUM-BINDING 2 PROTEIN,	PHOSPHATIDYLSERINE, PROTEIN	KINASE C	TRANSFERASE CALCIUM++,	PHOSPHOLIPID BINDING PROTEIN,	CALCTUM-BINDING 2 PROTEIN,	PHOSPHATIDYL SERINE, PROTEIN	KINASE C	HYDROLASE CALB DOMAIN;	h i drolase, cz domain, calb Domain	HYDROLASE CALB DOMAIN;
	Н					4 A					<u> </u>	1	- ρ.	. 0	д	X	T	<u>~</u>		<u>Α</u>	쪼	I	<u> </u>	<u> </u>	Δ, ;	+			
Coumpound		PHOSPHOINOSITIDE-SPECIFIC PHOSPHOLIPASE C, CHAIN: A,					PHOSPHOINOSITIDE-SPECIFIC	PROSPROLIFASE C, CHAIN: A, p.				PROTEIN VINASE C AL PHA	IAIN: A:	•			PROTEIN KINASE C, ALPHA	IAIN: A;				PROTEIN KINASE C, ALPHA	IAIN: A;				PHOSPHOLIPASE A2; CHAIN:		PHOSPHOLIPASE A2; CHAIN:
)HASOHA	'n				PHOSPH	rhosrh p.	î			DOCTER	TYPE CHAIN: A:	î			PROTEIN	TYPE; CHAIN: A;				PROTEIN	TYPE; CHAIN: A;				PHOSPH(NOLL;	PHOSPH(
SEQFOL D score											-																		51.76
PMF score		0.16					0.21					20	3				0.07					0.88					0.28		
Verify score		0.49					0.20					0.50	70.0				-0.13					0.47					0.17		
Psi Blast		6.8e-23			•		3.4e-22					10.24	17.				5.1e-28					6.8e-27					6e-23		4.5e-25
END		121					302					137	<u> </u>				295					117					276		145
STAR T AA		27					183					17	:				183					18					184		20
CHAI		⋖					æ					<	¢				∀					Ą							
PDB OI		иjх					1djx					1.000	<u> </u>				1dsy					1dsy					MrI		lrlw
SEQ NO.		1502					1502					1500	7007				1502					1502					1502		1502

PDB annotation	HYDROLASE, C2 DOMAIN, CALB DOMAIN	HYDROLASE CALB DOMAIN; HYDROLASE, C2 DOMAIN, CALB DOMAIN				ENDOCYTOSIS/EXOCYTOSIS C2-DOMAINS, C2B-DOMAIN, RABPHILIN, ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS BETA SANDWICH, CALCIUM ION, C2 DOMAIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION
Coumpound	NULL;	PHOSPHOLIPASE A2; CHAIN: NULL;	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	RABPHILIN 3-A; CHAIN: A;	SYNAPTOTAGMIN III; CHAIN: A;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA;
SEQFOL D score			ļ		59.11				
PMF score		0.93	0.48	0.21		0.34	0.19	1.00	96.0
Verify score		0.78	0.18	0.36		0.00	-0.57	0.40	0.29
Psi Blast		4.5e-25	3.4e-30	I.7e-28	1.7e-28	1.2e-26	6.8e-53	1.5e-26	1.2e-29
END AA		143	284	122	130	294	223	861	828
STAR T AA		30	191	61	2	168	144	693	694
CHA1 N ID						A		Д	В
PDB 1D		Irlw	lrsy	Irsy	Irsy	Згрь		Тамс	lawc
SEQ No.		1502	1502	1502	1502	1502	1502	1503	1503

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PDB annotation	REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANK YKIN KEPEA IS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS,	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	GABPBETA1; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS,	TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	GABPBETA1; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS,	TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	GABPBETA1; COMPLEX
Coumpound	CHAIN: A; GA BINDING PROTEIN BETA I; CHAIN: B;	DNA, OIMIN. D, E,			GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;				GA BINDING PROTEIN ALPHA:	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;					GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;					GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;
SEQFOL D score																													
PMF score					1.00						1.00								0.78								-0.11		
Verify score					99.0						0.72								0.02								80.0		
Psi Blast					5.1e-38						7.5e-34								1.2e-31								3.4e-29		
END					\$68						936								970								1005		
STAR T AA					748						779								780								847		
CHAI N ID					В						B				_				Д		_						В		
PDB ID					1awc						lawc								lawc								1awc		
SEQ NO.					1503						1503								1503								1503		

PDB annotation	(TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT
	R S S S S S S S S S S S S S S S S S S S						
Coumpound	DNA; CHAĪN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PIGINK4D CDK4/6 INHIBITOR; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P191NK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;
SEQFOL D score							
PMF score		-0.11	86.0	1.00	0.99	0.76	1.00
Verify score		0.05	0.26	09.0	0.37	0.07	0.64
Psi Blast		1.7e-29	3.4e-26	4.5e-32	1.1e-26	1.4e-24	7.5e-33
END		1045	862	937	898	862	941
STAR T AA		088	269	776	695	697	611
CHAI N ID		Ф			a	Ω	В
PDB TD		lawc	1bd8	1bd8	1blx	1bix	Iblx
SEQ NO.		1503	1503	1503	1503	1503	1503

PDB annotation	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	METAL BINDING PROTEIN ZINC- BINDING MODULE, ANKYRIN REPEATS, METAL BINDING PROTEIN	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX
Coumpound		CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	PYK2-ASSOCIATED PROTEIN BETA; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA-
SEQFOL D score									
PMF score		0.84	66'0	0.77	1.00	9.65	1.00	1.00	0.31
Verify score		0.42	0.39	0.23	0.81	-0.07	0.22	0.52	0.21
Psi Blast		3.4e-31	6.8e-32	3e-19	1.2e-32	1.4e-21	1.7e-30	6.8e-32	1.7e-31
END		867	894	833	606	881	998	894	812
STAR T AA		697	748	693	91.1	589	697	748	640
CHAI		A	Α.	A	Ą	¥	A	Ą	D
PDB CI		1bu9	1bu9	1d9s	s6p1	1dcq	lihb	1166	1 ikn
SEQ EQ	ğ	1503	1503	1503	1503	1503	1503	1503	1503

PDB annotation			TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX		TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX		TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX		COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX
Coumpound	•	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA-	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA-	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; 1-KAPPA-	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	£.		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	<u>.</u>		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	Ĺ.		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;
SEQFOL	D score																																	
PMF	score		1.00			1.00				1.00				1.00				88.0					1.00					1.00					1.00	
Verify	score		0.10			0.37				0.52				0.37				0.15					0.43					0.42					0.50	
Psi Blast			3e-34			3.4e-38			,	3e-4I				3e-38				1.7e-31					7.5e-34					8.5e-38					3e-35	
END	AA		912			882				947				983				812					606					882					982	
STAR	T AA		663			722				747				9//				640					693					721					9//	
CHAI	OI N		Q			Ω				Q				Q				3					ш					9					ш	
PDB	a		likn			1iki				likn				likn				Infi					1nfi					1nfi					Infi	
SEQ	NO.		1503			1503				1503				1503				1503					1503					1503					1503	

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PDB annotation	(TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX		TRANSFERASE PARP-CF, POLY(ADP-RIBOSE) TRANSFERASE,	POLY TRANSFERASE,	2 ADP-RIBOSYLTRANSFERASE, INAU(†)	TRANSFERASE PARP-CF,	POLY(ADP-RIBOSE) TRANSFERASE,	POLY TRANSFERASE,	GLYCOSYLTRANSFERASE, NAD(+)	2 ADP-RIBOSYLTRANSFERASE	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	GABPBETA1; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS,	TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	GABPBETA1; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS,	TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	KEGULA HUNDINA) GABPALPHA;	GABPBETA1; COMPLEX	LINE LINE LINE IN THE LINE IN
Соптроинд	I-KAPPA-B-ALPHA; CHAIN: E, F;		POLY (ADP-RIBOSE) POLYMERASE; CHAIN: NULL;			POLY (ADP-RIBOSE)	POLYMERASE; CHAIN: NULL;	,			GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;					GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;					GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA I; CHAIN: B; DNA: CHAIN: D. F.	יייייייייייייייייייייייייייייייייייייי
SEQFOL D score																														
PIMF score	:		0.52			0.16					1.00								1.00								0.86			
Verify score			10.0			-0.24					0.46								0.22								0.15			
Psi Blast			1e-35			1.7e-08					3.4e-35								6.8e-39								1.7e-36			
END			1128			1127					296								329								357			
STAR T AA			826			994					128								185								215			
CHAI N ID											щ								щ								щ			
PDB ID			1a26			1a26					lawc								lawc								lawc			
SEQ ID NO:			1504			1504					1504								1504								1504			

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_	REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING,
PDB annotation	REGULATION/DNA), DNA-B 2 NUCLEAR PROTEIN, ETS I ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPAI GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BI 2 NUCLEAR PROTEIN, ETS D ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPAI GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BI 2 NUCLEAR PROTEIN, ETS D ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPAI GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BI 2 NUCLEAR PROTEIN, ETS D ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPAI GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BI
РДВ ап	REGULATION/DNA), 2 NUCLEAR PROTEI ANKYRIN REPEATS, TRANSCRIPTION 3 F	COMPLEX (TRANSCRIP REGULATION/DNA) GAI GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DN 2 NUCLEAR PROTEIN, E ANKYRIN REPEATS, TRANSCRIPTION 3 FAC.	COMPLEX (TRANSCRIP REGULATION/DNA) GAI GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DN 2 NUCLEAR PROTEIN, E ANKYRIN REPEATS, TRANSCRIPTION 3 FACT	COMPLEX (TRANSCRIP) REGULATION/DNA) GAI GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DN R NUCLEAR PROTEIN, Ë ANKYRIN REPEATS, TRANSCRIPTION 3 FACT	COMPLEX (TRANSCRIP) REGULATION/DNA) GAI GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DN
, I	ULATI(CLEAR YRIN F	COMPLEX (TRAN) REGULATION/DN GABPBETA1; COM GABPBETA1; COM (TRANSCRIPTION REGULATION/DN REGULATION/DN REGULATION/DN REGULATION/DN REGULATION/DN REGULATION/DN REGULATION/DN	COMPLEX (TRAN) REGULATION/DN GABPBETA1; COM GARANSCRIPTION (TRANSCRIPTION REGULATION/DN REGULATION/DN REGULATION/DN TANKYRIN REPEAT	COMPLEX (TRAN) REGULATION/DN GABPBETA!; CON (TRANSCRIPTION REGULATION/DN REGULATION/DN NUCLEAR PROT ANK YRIN REPEA'	COMPLEX (TRAN REGULATION/DN GABPBETAI; CON (TRANSCRIPTION REGULATION/DN
	2 NL ANK TRA	CON REG GAB CITC 2 NU ANK	CON REG GAB (TRZ (TRZ ANK ANK	CON REG GAB (TR/ TR/ ANK	REG GAB (TRA REG 2 NU
		A. B.	ALPHA;	A. B;	ALPHA;
pano		OTEIN ANDING	OTEIN / NDING ; CHAII E;	OTEIN A NDING ; CHAII E;	OTEIN A NDING I; CHAII E;
Coumpound		ING PRO CA BI BETA I AIN: D,	ING PRO	ING PRO I, GA BI BETA I AIN: D,	ING PRO S, GA BI BETA I
		GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;
Jo a		0020	0010	0040	0050
SEQFOL D score					
PMF score		1.00	1:00	1.00	0.95
Verify score		0.62	0.75	0.69	0.17
Psi Blast					
		36-43	1.5e-39	1.2e-33	1.2e-37
AA AA		164	921	482	578
STAR T AA		22	26	335	402
CHAI N ID		В	В	В	Ф
aga GI		Тажс	lawc	lawc	lawc
SEQ NO:		1504	1504	1504	1504

PDB annotation	ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR		GABPBETA1; COMPLEX	(TRANSCRIPTION REGULATIONDING, DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANK YKUN KEPEA1S, TRANSCRIPTION 3 FACTOR	-	REGULATION/DNA) GABPALPHA;	GABPBEIAI; COMPLEX	REGILATION/DNA) DNA-BINDING	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS,	TRANSCRIPTION 3 FACTOR	-	REGULATION/DNA) GABPALPHA;	GABPBETAI; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	+		GABPBETA1; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYKIN KEPEAIS, TRANSCRIPTION 3 FACTOR
Coumpound		GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;			GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA I; CHAIN: B;	DIVA; CHAIN: D, E;				GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;				GA BINDING PROTEIN ALPHA:	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;			
SEQFOL D score													ļ	105.28													
PMF		1.00					1.00								.						1.00						
Verify score	!	0.04					0.49					٠									0.47						
Psi Blast		3.4e-33					4.5e-47							4.5e-47							8.5e-39						
END AA		611					449							644							640						
STAR T AA		437					491							164							496						
CHAI N ID		В					В							В							В						
PDB ID		lawc					lawc		_					lawc							lawc						
SEQ ID NO:		1504					1504							1504							1504						

							_															
PDB annotation	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA;	GABPBETAI; COMPLEX (TRANSCRIPTION	REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN,	ANKYRIN REPEATS, TE ANSCEDE THE ANSCEDE THE ANSCED THE	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	GABPBETA1; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	2 NUCLEAR PROTEIN, ETS DOMAIN,	ANK I KIN KEFEA IS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION	REGULATION/DNA) GABPALPHA;	GABPBETAI; COMPLEX	(TRANSCRIPTION	REGULATION/DNA), DNA-BINDING,	ANK VRIN REPFATS	TRANSCRIPTION 3 FACTOR	TRANSFERASE RECEPTOR	TYROSINE KINASE. PROTEIN
Coumpound	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;		GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING	PROTEIN BETA I; CHAIN: B; DNA; CHAIN: D, E;			GA BINDING PROTEIN ALPHA:	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;				GA BINDING PROTEIN ALPHA;	CHAIN: A; GA BINDING	PROTEIN BETA 1; CHAIN: B;	DNA; CHAIN: D, E;				EPHA4 RECEPTOR TYROSINE	KINASE: CHAIN: A:
SEQFOL D score																						
PMF score	1.00		1.00				1 00	}						1.00							1.00	
Verify score	0.64		0.49				0.28							-0.00							1.27	
Psi Blast	3e-42		3.4e-38				1 2e-35							1.4e-40							9e-07	
END AA	784		161	•			817							296							933	
STAR T AA	645		099				683	}						68							877	
CHAI N ID	В		В				æ	1						В							¥	
PDB ID	lawc		lawc				lawe							Iawc							160x	
SEQ NO B	1504		1504				1504							1504							1504	

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PDB annotation	INTERACTION MODULE, 2 DIMERIZATION DOMAIN, TRANSFERASE	TRANSFERASE RECEPTOR TYROSINE KINASE, PROTEIN INTERACTION MODULE, 2 DIMERIZATION DOMAIN,	SIGNAL TRANSDUCTION SAM DOMAIN, EPH RECEPTOR, SIGNAL TRANSDICTION, OLIGOMER	SIGNAL TRANSDUCTION SAM DOMAIN, EPH RECEPTOR, SIGNAL TRANSDUCTION, OLIGOMER	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INFIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR,
Coumpound		EPHA4 RECEPTOR TYROSINE KINASE; CHAIN: A;	EPHB2; CHAIN: A, B, C, D, E, F, G, H;	BPHB2; CHAIN: A, B, C, D, E, F, G, H;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9TNK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;
SEQFOL D score											
PMF score		1.00	0.99	0.99	1.00	1.00	1.00	96.0	1.00	1.00	1.00
Verify score		1.08	0.82	0.72	0.43	0.67	0.67	0.13	0.14	0.82	60.0
Psi Blast		3.4e-06	0.00014	4.5e-10	4.5e-36	3e-39	1e-28	3e-34	7.5e-39	1.5e-42	1.5e-41
END		941	935	933	317	164	483	581	614	£43	701
STAR		877	875	877	179	24	332	402	433	492	525
CHAI N ID		¥	4	¥							
PDB U		1b0x	1b4f	1b4f	1bd8	1bd8	1bd8	15d8	1bd8	16d8	15d8
SEQ No.		1504	1504	1504	1504	1504	1504	1504	1504	1504	1504

PDB annotation	ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	COMPLEX (NHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (NHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (NHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT
Coumpound		P19INK 4D CDK 4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9INK 4D CDK 4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK 4D; CHAIN: B;
SEQFOL D score		_								
PMF score		1.00	0.94	1.00	1.00	66.0	0.53	1.00	0.01	1.00
Verify score		0.31	0.09	0.50	0.51	0.47	-0.32	0.45	-0.31	09:0
Psi Blast		66-41	4.5e-39	3e-41	le-28	1.4e-28	1.2e-37	1.5e-35	1.2e-31	1.5e-39
END AA		191	266	784	800	818	299	317	459	164
STAR T AA		594	79	644	099	683	ጽ	179	248	26
CHAI N ID								മ	a	В
gaa m		8pq1	1bd8	1bd8	1bd8	1648	1bd8	1bk	1bk	1blx
SEQ NO:		1504	1504	1504	1504	1504	1504	1504	1504	1504

PDB annotation	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR
Coumpound		CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE				
SEQFOL D score							
PMF score		1.00	66:0	00:1	00'1	1.00	1.00
Verify score		0.49	0.34	0.72	0.17	0.59	0.54
Psi Blast		4.5e-30	1.5e-41	7.5e-42	4.5e-45	9e-40	8.5e-28
END AA		483	618	643	771	784	800
STAR T AA		332	435	494	594	648	660
CHAI N ID		Ø	m m	B	B	æ	В
PDB ID		1blx	1bk	1blx	1blx	1blx	1blx
SEQ NO:		1504	1504	1504	1504	1504	1504

PDB annotation	PROTEINKINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN-
Coumpound	6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE			
SEQFOL D score								
PMF score		0.99	0.92	1.00	1.00	1.00	1.00	1.00
Verify score		0.30	0.28	0.85	0.64	0.57	0.63	0.27
Psi Blast		1.4e-28	1.7 e -36	1.2e-35	1.4e-32	5.le-33	6e-35	3e-35
END		818	334	176	640	802	617	164
STAR T AA		683	182	28	496	993	485	46
CHAI N ID		В	A	A	¥	A	A	A
PDB ID		1blx	1bu9	1bu9	1bu9	1bu9	s6P1	149s
SEQ NO:		1504	1504	1504	1504	1504	1504	1504

PDB annotation		HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	CELL CYCLE INHIBITOR P18-	INHERTOR, P18-INK4C(INK6),	ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE INHIBITOR P18-INK4C(INK6)	ANKYRIN REPEAT, 2 CDK 4/6	INHIBITOR	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE	INHIBITOR, P18-INK4C(INK6),	ANKYKIN REPEAT, 2 CDK 4/6	INHIBITOR	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE	INHIBITOR, P18-INK4C(INK6),	ANKYRIN REPEAT, 2 CDK 4/6	INHIBITOR	TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX		TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX		TRANSCRIPTION FACTOR P65;
Coumpound		4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE	O INFIIDITOR; CHAIN: A, B;		CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;			CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;				CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;				NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; 1-KAPPA-	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA-	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;
SEQFOL	D score																													
PMF	score		00'1	0.45	1.00			1.00				1.00					00.1					0.00	_			0:30				1.00
Verify	score		0.32	0.17	0.40			0.84				99.0					0.47					-0.18				-0.38				0.36
Psi Blast			7.5e-38	6e-37	8.5e-36			1.2e-35				1.4e-32					1.7e-32					1.2e-35				1.7e-33				1.5e-48
END	AA		643	770	333			176				640					801					366				403				240
STAR	I AA		517	585	182			28	•			496					663					156				210				28
CHAI	9		Ą	Ą	A			A				Ą					¥		_			Ω				Δ				D
PDB	3		1d9s	1d9s	1ihb			1ih				lihb					1ihb					likn				1ikn				likn
SEQ	a ÿ		1504	1504	1504			1504				1504					1504					1504				1504				1504

12	[A]	STAR	END	Psi Blast	Verify	PMF	SEQFOL	Coumpound	PDB annotation
NIB		TAA	¥		score	score	D score		
								CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA: CHAIN: D:	P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX
		399	562	1.4e-30	-0.26	0.30		NF-KAPPA-B P65 SUBUNIT;	TRANSCRIPTION FACTOR P65;
								CHAIN: A; NF-KAPPA-B P50D	P50D; TRANSCRIPTION FACTOR,
								SUBUNII; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	INB/INFINB COMPLEX
A		525	715	5.1e-34	-0.26	90.0		NF-KAPPA-B P65 SUBUNIT;	TRANSCRIPTION FACTOR P65;
								CHAIN: A; NF-KAPPA-B P50D STRUMT: CHAIN: C: L:KAPPA-	P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX
								B-ALPHA; CHAIN: D;	
		528	775	09- 9 9	-0.05	0.55		NF-KAPPA-B P65 SUBUNIT;	TRANSCRIPTION FACTOR P65;
								CHAIN: A; NF-KAPPA-B P50D	P50D; TRANSCRIPTION FACTOR,
								SUBUNIT; CHAIN: C; I-KAPPA-	IKB/NFKB COMPLEX
								B-ALPHA; CHAIN: D;	
Д		258	748	1.7e-36	-0.36	0.25		NF-KAPPA-B P65 SUBUNIT;	TRANSCRIPTION FACTOR P65;
								CHAIN: A; NF-KAPPA-B P50D	PSOD; TRANSCRIPTION FACTOR,
								SUBUNIT; CHAIN: C; I-KAPPA-	IKB/NFKB COMPLEX
-								B-ALPHA; CHAIN: D;	
Д		672	817	1.7e-36	0.20	0.92		NF-KAPPA-B P65 SUBUNIT; CHAIN: A: NF-KAPPA-B P50D	TRANSCRIPTION FACTOR P65; P50D: TRANSCRIPTION FACTOR,
								SUBUNIT; CHAIN: C; I-KAPPA-	IKB/NFKB COMPLEX
								B-ALPHA; CHAIN: D;	
Ω		06	296	8.5e-40	-0.05	08.0		NF-KAPPA-B P65 SUBUNIT;	TRANSCRIPTION FACTOR P65;
								CHAIN: A; NF-KAPPA-B P50D	P50D; TRANSCRIPTION FACTOR,
								SUBUNIT; CHAIN: C; I-KAPPA-	IKB/NFKB COMPLEX
Į								B-ALPHA; CHAIN: D;	
Δ		91	396	4.5e-40	-0.19	0.12		NF-KAPPA-B P65 SUBUNIT;	TRANSCRIPTION FACTOR P65;
								CHAIN: A; NF-KAPPA-B P50D	P50D; TRANSCRIPTION FACTOR,
								SUBUNIT; CHAIN: C; I-KAPPA-	IKB/NFKB COMPLEX
								B-ALPHA; CHAIN: D;	
		213	317	3e-35	60:0	0.98		MYOTROPHIN; CHAIN: NULL	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR. ANK-REPEAT
		365	482	6e-30	0.57	1.00		MYOTROPHIN; CHAIN: NULL	ANK-REPEAT MYOTROPHIN,

PDB annotation	ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN,	ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN,	ACETYLATION, NMK, ANK-KEPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT), ANK YRIN 2 REPEAT HELIX
Coumpound		MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL		MYOTROPHIN; CHAIN: NULL		MYOTROPHIN; CHAIN: NULL	NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	ь́т.		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	ţŗ.		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	т;		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	F.		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	F;
SEQFOL D score																															
PMF score		1.00	1.00		1.00		0.86	0.58					0.93					0.36					96.0					0.41			
Verify score		0.51	0.03		99.0		0.57	-0.11					-0.17					-0.34					-0.01					0.08			
Psi Blast		36-39	1.5e-38	1	7.5e-39		6.8e-25	6.80-36					1.5e-40					1.2e-44					5.1e-33	•				1.5e-50			
END		644	165		794		799	998					424					458					403					622			
STAR T AA		528	19		681		684	154					154					208					209					365			
CHAI N ID								Ξ				İ	ы					ш					ப					E			
PDB ID		1myo	lmyo	,	1myo		1myo	lafi					1nfi					lnfi					III.					1nfi			
SEQ NO.		1504	1504		1504		1504	1504					1504					1504					1504			_		1504			

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PDB annotation	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANK YRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELLX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANK YRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT),
Coumpound	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-B-ALPHA; CHAIN: E, F;
SEQFOL D score							
PMF score	0.95	1.00	0.99	1.00	0.49	1.00	0.98
Verify score	0.08	0.35	0.34	-0.06	-0.13	0.22	0.12
Psi Blast	36-45	5.1e-37	1.7e-32	6e-57	1.3e-54	1.7e-36	6.8e-40
END AA	643	828	682	777	307	817	296
STAR T AA	429	463	490	528	61	672	88
CHAI N ID	ங	ш	ធា	ш	ធ	ш	a
808 10	1nfi	1nfi	Infi	Infi	Infi	Infi	lnfi
SE Si Si Si Si Si Si Si Si Si Si Si Si Si	1504	1504	1504	1504	1504	1504	1504

<u> </u>																				\neg								7
PDB annotation	ANKYRIN 2 REPEAT HELIX	TYROSINE-PROTEIN KINASE NMR, RECEPTOR OLIGOMERIZATION, EPH RECEPTORS, TYROSINE 2	PHOSPHOR YLATION, SIGNAL TRANSDUCTION, TYROSINE-	PROTEIN 3 KINASE	TYROSINE-PROTEIN KINASE NMR,	EPH RECEPTORS, TYROSINE 2	PHOSPHORYLATION, SIGNAL	TRANSDUCTION, TYROSINE-	PROTEIN 3 KINASE	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION	ANKYRIN REPEATS, CELL-CYCLE	COMPLEX (ANTI-	ONCOGENE/ANKYRIN REPEATS)	P53BP2; ANK YRIN REPEATS, SH3,	P53, TUMOR SUPPRESSOR,	MULTIGENE 2 FAMILY, NUCLEAR	PROTEIN, PHOSPHORYLATION,	DISEASE MULATION, 3	POLYMORPHISM, COMPLEX (ANTI-	ONCOGENE/ANK YRIN KEPEA1S)	COMPLEA (ANTI-	UNCOGENE/ANK YKIN KEPEAIS)	P53BP2; ANKYRIN REPEATS, SH3,	PSS, I UMOR SUPPICESSOR,	MULTIGENE 2 FAMILY, NUCLEAR	PROTEIN, PHOSPHORYLATION,	DISEASE MUTATION, 3	POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)
Conmpound		EPHRIN TYPE-B RECEPTOR 2; CHAIN: NULL;			EPHRIN TYPE-B RECEPTOR 2;	CITALIN: INOLE,				REGULATORY PROTEIN SWI6;		P53; CHAIN: A; 53BP2; CHAIN:	;;							nes Citable 4. capps. Citable	ros; Chank: A; Sobre; Chank:							
SEQFOL D score										,																		
PMF score		0.84			0.59					0.18		0.84								5	3.							
Verify		0.65			0.78					-0.22		-0.13								50	-0.03							
Psi Blast		0.00034			1.5e-09					6e-37		6e-30								1 6- 40	4.36-40							
END		935			933					784		695								200	1							
STAR T AA		875			21.8					527		366								003	970							
CHAI N ID										٧		В								2	۵.							
PDB U		Isgg			lsgg					1sw6		1ycs									3							
Se Se Se		1504			1504					1504		1504								7031	± 001							

PDB annotation	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	TRANSCRIPTION REGULATION PROTO-ONCOGENE, NUCLEAR BODIES (PODS), LEUKEMIA, 2 TRANSCRIPTION REGULATION		SIGNALLING COMPLEX RACI; P67PHOX; SIGNALLING COMPLEX, GTPASE, NADPH OXIDASE, PROTEIN-PROTEIN 2 COMPLEX, TPR MOTIF	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL
	COMP ONCO P53BP P53, T MULT PROTI PROTI PROTI ONCO	HYDR TRP; I PROTI TPR, 2 STRU(PROTO BODIE TRAN		SIGNAI P67PHC GTPASI PROTEI MOTIF	CHAPERC PEPTIDE- REPEAT, I BINDING	CHAP
Coumpound	P53; CHAIN: A; 53BP2; CHAIN: B;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	TRANSCRIPTION FACTOR PML; CHAIN: NULL;	VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN) 1CHC 3 (NMR, 1 STRUCTURE) 1CHC 4	RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 1; CHAIN: A; NEUTROPHIL CYTOSOL FACTOR 2 (NCF-2) CHAIN: B;	TPR2A-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN:
SEQFOL D score			·				
PMF	0.76	0.05	0.13	0.82	-0.03	0.31	-0.02
Verify	0.01	-0.10	-0.76	-0.25	0.02	0.05	0.00
Psi Blast	7.5e-39	1.7e-29	3e-14	6e-14	3.4e-14	6.8e-22	1.5e-11
END AA	254	190	262	262	191	191	110
STAR T AA	59	39	218	221	40	39	24
CHAI N ID	В				a	«	<
PDB ID	lycs	1817	1bor	Ichc	1e96	leir	lelw
SEQ ID NO:	1504	1507	1507	1507	1507	1507	1507

PDB annotation	REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	METAL BINDING PROTEIN RING FINGER PROTEIN MATI; RING FINGER (C3HC4)	DNA-BINDING PROTEIN V(D)J RECOMBINATION ACTIVATING PROTEIN 1; RAG1, V(D)J RECOMBINATION, ANTIBODY, MAD, RING FINGER, 2 ZINC BINUCLEAR CLUSTER, ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (IMMUNOGLOBULIN/AUTOANTIGE N) COMPLEX	(IMMUNOGLOBULIN/AUTOANTIGE N), RHEUMATOID FACTOR 2 AUTO-ANTIBODY COMPLEX	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING,							
Coumpound	C, D;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	CDK-ACTIVATING KINASE ASSEMBLY FACTOR MATI; CHAIN: A;	RAGI; CHAIN: NULL;	IGG4 REA; CHAIN: A; RF-AN IGM/LAMBDA; CHAIN: H, L;		HEMOLIN; CHAIN: A, B; e										124.44
PMF score		0.24	0.37	0.84	0.64		0.39	0.49	96.0								
Verify score		0.13	-0.20	0.13	-0.07		0.18	0.34	0.29								
Psi Blast		1.4e-21	4.5e-13	9c-17	8.5e-18		5.1e-43	1.5e-43	1.7e-50	1.7e-50							
END AA		153	262	302	531		628	721	812	813							
STAR T AA		39	221	210	352		262	350	449	450							
CHAI		4	∢		J.		Ą	¥	4	A							
PDB ID		lelw	1g25	1rmd	ladq	-	1bih	15ih	1bih	Ibih							
SEQ NO D		1507	1507	1507	1508		1508	1508	1508	1508							

PDB annotation	HOMOPHILIC ADHESION	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	INSECT IMMUNITY INSECT IMMUNITY, LPS-BINDING, HOMOPHILIC ADHESION	T-CELL SURFACE GLYCOPROTEIN IMMUNOGLOBULIN FOLD, TRANSMEMBRANE.	GLYCOPROTEIN, T-CELL, 2 MHC, LIPOPROTEIN, T-CELL SURFACE GLYCOPROTEIN	CELL ADHESION NEURAL CELL ADHESION	ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL ADHESION	CELL ADHESION NEURAL CELL
Coumpound		HEMOLIN; CHAIN: A, B;	HEMOLIN; CHAIN: A, B;	HEMOLIN; CHAIN: A, B;	HEMOLIN; CHAIN: A, B;	T-CELL SURFACE GLYCOPROTEIN CD4; CHAIN: NILL:		AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;	AXONIN-1; CHAIN: A;
SEQFOL D score															
PMF score		-0.07	0.36	0.49	0.21	0.42	_	0.53	0.41	0.62	-0.01	0.84	0.70	-0.08	-0.02
Verify score		0.00	0.15	0.06	0.18	0.42		-0.05	0.07	0.15	0.08	0.26	0.24	0.05	0.07
Psi Blast		5.1e-37	6.8e-40	4.5e-37	3.4e-46	I.5e-15		8.5e-49	1.5e-49	5.1e-63	le-44	3.4e-55	5.1e-49	6.8e-37	7.5e-39
END		335	1073	447	1184	723		535	628	721	347	813	897	448	448
STAR T AA		4	726	74	816	557		178	262	348	3	449	536	64	74
CEAI N ID		Α .	A	<	A		,	¥	A	¥	¥	∀	∢	Ą	4
PDB ID		1bih	15ih	1bib	1bih	lcdy		1cs6	1cs6	lcs6	1036	lcs6	1cs6	1cs6	lcs6
SEQ Signal Signa		1508	1508	1508	1508	1508		1508	1508	1508	1508	1508	1508	1508	1508

END Psi Blast Verlfy AA score		Psi Blast Verlfy score	Verify score		PMF score		SEQFOL D score	Coumpound	PDB annotation
						ш			ADHESION
1cs6 A 829 1185 8.5e-48 0.04 0.24	1185 8.5e-48 0.04	8.5e-48 0.04	0.04		0.24			AXONIN-1; CHAIN: A;	CELL ADHESION NEURAL CELL ADHESION
Icvs C 1009 1184 1.7e-38 0.13 -0.01	1184 1.7e-38 0.13	1.7e-38 0.13	0.13		-0.01			FIBROBLAST GROWTH FACTOR 2: CHAIN: A. B:	GROWTH FACTOR/GROWTH FACTOR REFER,
	-							FIBROBLAST GROWTH	IMMUNOGLOBULIN-LIKE, SIGNAL
								FACTOR RECEPTOR 1; CHAIN:	TRANSDUCTION, 2 DIMERIZATION,
								Ç.D;	GROWTH FACTOR/GROWTH FACTOR RECEPTOR
1cvs C 1096 1260 5.1e-21 0.08 -0.19	1260 5.1e-21 0.08	5.1e-21 0.08	0.08		-0.19			FIBROBLAST GROWTH	GROWTH FACTOR/GROWTH
								FACTOR 2; CHAIN: A, B;	FACTOR RECEPTOR FGF, FGFR,
				-				FIBROBLAST GROWTH	IMMUNOGLOBULIN-LIKE, SIGNAL
								FACTOR RECEPTOR 1; CHAIN:	TRANSDUCTION, 2 DIMERIZATION,
								C, D;	GROWTH FACTOR/GROWTH FACTOR RECEPTOR
1cvs C 178 346 6.8e-21 -0.16 0.30	346 6.8e-21 -0.16	6.8e-21 -0.16	-0.16		0.30			FIBROBLAST GROWTH	GROWTH FACTOR/GROWTH
			-					FACTOR 2; CHAIN: A, B;	FACTOR RECEPTOR FGF, FGFR,
								FIBROBLAST GROWTH	IMMUNOGLOBULIN-LIKE, SIGNAL
								FACTOR RECEPTOR 1; CHAIN:	TRANSDUCTION, 2 DIMERIZATION,
								C, D;	GROWTH FACTOR/GROWTH
									FACTOR RECEPTOR
Icvs C 2 146 3.4e-17 0.23 -0.15	146 3.4e-17 0.23	3.4e-17 0.23	0.23		-0.15			FIBROBLAST GROWTH	GROWTH FACTOR/GROWTH
								FACTOR 2; CHAIN: A, B;	FACTOR RECEPTOR FGF, FGFR,
				-				FIBROBLAST GROWTH	IMMUNOGLOBULIN-LIKE, SIGNAL
							٠	FACTOR RECEPTOR 1; CHAIN:	TRANSDUCTION, 2 DIMERIZATION,
				-				Ç Ç	GROWTH FACTOR/GROWTH
									FACTOR RECEPTOR
1cvs C 361 535 5.1e-23 0.17 0.21	535 5.1e-23 0.17	5.1e-23 0.17	0.17		0.21			FIBROBLAST GROWTH	GROWTH FACTOR/GROWTH
-								FACTOR 2; CHAIN: A, B;	FACTOR RECEPTOR FGF, FGFR,
								FIBROBLAST GROWTH	IMMUNOGLOBULIN-LIKE, SIGNAL
								FACTOR RECEPTOR 1; CHAIN:	TRANSDUCTION, 2 DIMERIZATION,
								C, D;	GROWTH FACTOR/GROWTH
		7							FACTOR RECEPTOR
1cvs C 450 628 8.5e-38 -0.05 0.54	628 8.5e-38 -0.05	8.5e-38 -0.05	-0.05		0.54			FIBROBLAST GROWTH	GROWTH FACTOR/GROWTH

PDB annotation	FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULN-LIKE, SIGNAL TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH
Coumpound	FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;
SEQFOL D score						
PMF score		0.27	0.21	-0.05	-0.15	0.06
Verify		-0.10	-0.42	0.07	0.05	0.23
Psi Blast		5.1e-24	8.5e-36	1.7e-24	1.7e-37	5.1e-34
END AA		260	812	968	966	1184
STAR T AA		61	. 642	737	813	1009
CHAI		U	U	ပ	ပ	Q
PDB ID		lovs	lcvs	lcvs	lcvs	lcvs
SEQ TO SO		1508	1508	1508	1508	1508

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PDB annotation	FACTOR RECEPTOR	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF, FGFR, BANDRIGGI OPIT IN 1 INF SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR, IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR,	IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR,	IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR,	IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR,	IMMUNOGLOBULIN-LIKE, SIGNAL
Coumpound		FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B;	FIBROBLASI ONOWIN FACTOR RECEPTOR 1; CHAIN:	c, D;	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B;	FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;	,	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B;	FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B;	FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B;	FIBROBLAST GROWTH
SEQFOL D score																														
PMF score		0.82			0.01					-0.05						0.25						0.71						0:30		
Verify		-0.19			0.15					0.19						0.19						-0.02						0.13		
Psi Blast		1.2e-21			1.7e-33					6.8e-19						8.5e-25						3.4e-35						1.2e-22		
END		346	==		447					146						535						879						260		
STAR T AA		178			271					2						361						450						19		
CHAI		Ω			Д					Ω						Ω						Ω						Q		
PDB 1D		1cvs			levs					Icvs						lcvs						Icvs						lcvs		
SEQ NO:		1508	,		1508					1508						1508						1508						1508		

PDB annotation	TRANSDUCTION, 2 DIMERIZATION, GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FOF, FOFK, IMMINOGLOBUILING IKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR,	IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR,	IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF, FGFR,	IMMUNOGLOBULIN-LIKE, SIGNAL	TRANSDUCTION, 2 DIMERIZATION,	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR	VIRUS/VIRAL PROTEIN, RECEPTOR	CD155, PVR, HUMAN POLIOVIRUS,	ELECTRON MICROSCOPY, 2	POLIOVIRUS-RECEPTOR COMPLEX,	VIRUS/VIRAL PROTEIN, RECEPTOR	VIRUS/VIRAL PROTEIN, RECEPTOR	CD155, PVR, HUMAN POLIOVIRUS,
Coumpound	FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B; FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B;	FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B;	FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;	•	FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B;	FIBROBLAST GROWTH	FACTOR RECEPTOR 1; CHAIN:	C, D;		POLIOVIRUS RECEPTOR;	CHAIN: R; VP1; CHAIN: 1; VP2;	CHAIN: 2; VP3; CHAIN: 3; VP4;	CHAIN: 4;		POLIOVIRUS RECEPTOR;	CHAIN: R; VPI; CHAIN: 1; VP2;
SEQFOL D score																													
PMF score		00.0				0.04					-0.11						0.00						0.03					91.0	
Verify		-0.31				0.11					0.04						0.20						-0.35					-0.09	
Psi Blast		1.2e-36				1.7e-25					3.4e-34						3.4e-23						6e-22					1.3e-23	
END		812				968					966						1082						810	•				688	
STAR T AA		642				737				٠	813						116						602					641	
CHAI N ID		q				Q					Ω						q						~					R	
PDB ID		lcvs				lcvs					lcvs						Icvs						1dgi					1dgi	
SEQ ID NO:		1508				1508					1508						1508						1508					1508	

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PDB annotation	ELECTRON MICROSCOPY, 2 POLIOVIRUS-RECEPTOR COMPLEX, VIRUS/VIRAL PROTEIN, RECEPTOR	VIRUS/VIRAL PROTEIN, RECEPTOR CD155, PVR, HUMAN POLIOVIRUS, ELECTRON MICROSCOPY, 2 POLIOVIRUS-RECEPTOR COMPLEX.	VIRUS/VIRAL PROTEIN, RECEPTOR CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, CT VOOM OTHER	CELL ADHESION NCAM; NCAM, MMMUNOGLOBULIN FOLD, GLYCOPROTEIN	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	CELL ADHESION NCAM; NCAM, IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2;
Coumpound	CHAIN: 2; VP3; CHAIN: 3; VP4; CHAIN: 4;	POLIOVIRUS RECEPTOR; CHAIN: R; VP1; CHAIN: 1; VP2; CHAIN: 2; VP3; CHAIN: 3; VP4; CHAIN: 4;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	NEURAL CELL ADHESION MOLECULE; CHAIN: A, B, C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D;
SEQFOL D score											
PMF score		0.00	0.30	0.42	0.22	0.92	0.07	0.99	0.01	0.75	0.24
Verify score		-0.36	0.02	0.11	0.09	0.34	0.23	0.02	0.16	0.25	-0.16
Psi Blast		3.4e-18	6.8e-17	5.1e-28	3.4e-17	3e-24	3.4e-25	1.7e-20	4.5e-22	6.8e-19	1e-29
END		1184	346	433	517	645	722	798	266	982	447
STAR T AA		902	178	266	354	452	539	644	815	818	271
CHAI N ID		&	¥	4	4	A	4	4	Ą	4	3
en En		1dgi	lepf	lepf	lepf	lepf	lepf	lepf	lepf	1epf	lev2
SEQ ID NO:		1508	1508	1508	1508	1508	1508	1508	1508	1508	1508

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PDB annotation	IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; INAMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD
Coumpound	FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;
SEQFOL D score						
PMF score		0.04	0.07	-0.11	0.01	0.43
Verify score		0.10	-0.05	0.06	0.10	0.02
Psi Blast		5.1e-22	le-33	1.7e-31	5.1e-35	8.5e-21
END AA		535	628	966	1188	350
STAR T AA		361	454	825	1009	178
CHAI N ID		កា	щ	ក	_o	_ت
PDB ID		lev2	lev2	lev2	lev2	1ev2
SEQ NO:		1508	1508	1508	1508	1508

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PDB annotation	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL, FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I-
Coumpound	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH FACTOR RECEPTOR 2; CHAIN:
SEQFOL D score						
PMF score	-0.05	0.18	69.0	0.06	0.53	0.17
Verify score	0.01	0.13	0.41	-0.02	0.23	0.12
Psi Blast	8.5e-18	1.2e-32	6.8e-24	6.8e-34	1.7e-23	1.2e-21
END AA	152	451	538	628	724	264
STAR T AA	_	27.1	361	454	549	61
CHAI N ID	Ð	ບ	හ		ڻ ت	
PDB ID	lev2	lev2	lev2	lev2	lev2	lev2
SEQ NO:	1508	1508	1508	1508	1508	1508

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PDB annotation	SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2;	IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN 1G-1.1KE	DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF2; FGFR2;	IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING 10 THE I-	DOMAINS B-TREFOIL FOLD	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF2; FGFR2;	IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING TO THE I-	SET 2 SUBGROUP WITHIN IG-LIKE	DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF2; FGFR2;	IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING TO THE I-	SET 2 SUBGROUP WITHIN IG-LIKE	DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF2; FGFR2;	IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING TO THE I-	SET 2 SUBGROUP WITHIN IG-LIKE	DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH	FACTOR RECEPTOR FGF1; FGFK1;
Coumpound	Е, Е, G, Н;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D;	FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN:		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B, C, D;	FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN:	, r, c, r, r, r, r, r, r, r, r, r, r, r, r, r,	FIBRORI AST GROWTH	FACTOR 2: CHAIN: A. B. C. D:	FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN:	E, F, G, H;		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B, C, D;	FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN:	E, F, G, H;		FIBROBLAST GROWTH	FACTOR 2; CHAIN: A, B, C, D;	FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN:	E, F, G, H;		FIBROBLAST GROWTH	FACTOR I; CHAIN: A, B;
SEQFOL D score																														
PMF score		0.15				0.23					0.51						-0.15						-0.01						0.33	
Verify score		-0.35				80.0					0.18	:					0.04						0.02						-0.26	
Psi Blast		6.8e-34				3.4e-25					1 50-22						1.7e-33						6.8e-22						5.1e-21	
END		816				006					259						1000						. 1881						346	
STAR T AA		159				737					74						825						116						178	
CHAI N ID		Ö				G					r.)					G						G						ပ	
PDB ID		lev2				lev2					lev2						lev2						lev2						levt	
SEQ El S		1508				1508					1508						1508						1508						1508	

PDB annotation	IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE 1- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD
Coumpound	FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: . C, D;	FIBROBLAST GROWTH FACTOR I; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR I; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 1; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR I; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 1; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 1; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;
SEQFOL D score						
PMF		-0.06	-0.09	0.18	0.19	0.04
Verify score		0.01	0.23	-0.15	-0.01	0.16
Psi Blast		8.5e-32	3.4e-19	3.4e-33	3e-16	1.2e-22
END		447	146	628	703	260
STAR T AA		27.1	2	450	552	[9
CHAI N ID		v	ပ	ပ	ပ	ပ
PDB ID		levt	levt	levt	levt	levt
SEQ NO.		1508	1508	1508	1508	1508

PDB annotation	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF1; FGFR1; IMMUNOGLOBULIN (IG) LIKE DOMAINS BELONGING TO THE 1- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD	IMMUNE SYSTEM FC-EPSILON RI- ALPHA; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM FC-EPSILON RI- ALPHA; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM FC-EPSILON RI- ALPHA; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM FC-EPSILON RI- ALPHA; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM FC-EPSILON RI- ALPHA; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM FC-EPSILON RI- ALPHA; IMMUNOGLOBULIN FOLD,
Coumpound	FIBROBLAST GROWTH FACTOR I; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	FIBROBLAST GROWTH FACTOR 1; CHAIN: A, B; FIBROBLAST GROWTH FACTOR RECEPTOR 1; CHAIN: C, D;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON				
SEQFOL D score								
PMF score	0.11	-0.03	90.0	0.48	0.92	0.63	0.17	0.12
Verify score	-0.32	0.05	0.14	0.32	0.26	10:0-	0.05	0.04
Psi Blast	1.4e-35	1.2e-24	1.5e-17	3e-21	1.5e-20	9e-18	1.7e-21	3e-19
END	812	968	538	153	539	727	795	900
STAR T AA	642	737	349	39	415	509	646	<i>6LL</i> .
CHAI N ID	ပ	ပ	¥	∢	¥	¥	4	¥
PDB ID	levt	levt	11229	112q	1£2q	1£2q	122q	bZJI
SEQ ID NO:	1508	1508	1508	1508	1508	1508	1508	8051

PDB annotation	GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN	IMMUNE SYSTEM HIGH AFFINITY IGE-FC RECEPTOR, FC(EPSILON)	IGE-FC; IMMUNOGLOBULIN FOLD,	GLYCOPROTEIN, RECEPTOR, IGE-	ANTIBODY, IGE-FC	IMMUNE SYSTEM HIGH AFFINITY IGE-FC RECEPTOR, FC(EPSILON)	IGE-FC; IMMUNOGLOBULIN FOLD,	GLYCOPROTEIN, RECEPTOR, IGE-	ANTIBODY, IGE-FC	IMMUNE SYSTEM HIGH AFFINITY	IGE-FC RECEPTOR, FC(EPSILON)	IGE-FC; IMMUNOGLOBULIN FOLD,	GLYCOPROTEIN, RECEPTOR, IGE-	BINDING 2 PROTEIN, IGE	ANTIBODY, IGE-FC	IMMUNE SYSTEM HIGH AFFINITY	IGE-FC RECEPTOR, FC(EPSILON)	IGE-FC; IMMUNOGLOBULIN FOLD,	GLYCOPROTEIN, RECEPTOR, IGE-	BINDING 2 PROTEIN, IGE	ANTIBODY, IGE-FC	IMMUNE SYSTEM HIGH AFFINITY	IGE-FC RECEPTOR, FC(EPSILON)	IGE-FC; IMMUNOGLOBULIN FOLD,	GLYCOPROTEIN, RECEPTOR, IGE-	BINDING 2 PROTEIN, IGE	ANTIBODY, IGE-FC	IMMUNE SYSTEM HIGH AFFINITY IGE-FC RECEPTOR, FC(EPSILON)
Coumpound	RECEPTOR CHAIN: A; G	HIGH AFFINITY IMMUNOGLOBULIN EPSILON IV		EPSILON CHAIN C REGION; CHAIN: B.D.		HIGH AFFINITY IMMUNOGLOBULIN EPSILON I		AIN C REGION;	Chairt, B, L,	HIGH AFFINITY	ILON		AIN C KEGION;	CHAIN: B, D;			LON LON		AIN C REGION;	CHAIN: B, D;					AIN C REGION;	CHAIN: B, D;		HIGH AFFINITY IMMUNOGLOBULIN EPSILON IC
SEQFOL D score																												
PMF score		0.01				-0.02				0.30						0.24						0.70						0.95
Verify score		-0.01			-	60.0				0.16						0.35						0.21						0.37
Psi Blast		3.4e-19				3.4e-17				6e-21						9e-20						7.5e-19			-			7.5e-19
END		430				538				152						538						645						726
STAR T AA		258				346				39						415						451						999
CHAI N ID		V				4		- -		4						≺						∢			-			A
PDB ID		1f6a				1f6a				1f6a						1f6a						1f6a						1f6a
SEQ NO:		1508		<u> </u>	,	1508				1508						1508						1508						1508

PDB annotation	IGE-FC; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN, IGE ANTIBODY, IGE-FC	IMMUNE SYSTEM HIGH AFFINITY IGE-FC RECEPTOR, FC(EPSILON) IGE-FC; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN, IGE	IMMUNE SYSTEM HIGH AFFINITY IGE-FC RECEPTOR, FC(EPSILON) IGE-FC; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN, IGE ANTIBODY, IGE-FC	IMMUNE SYSTEM HIGH AFFINITY IGE-FC RECEPTOR, FC(EPSILON) IGE-FC; IMMUNOGLOBULIN FOLD, GLYCOPROTEIN, RECEPTOR, IGE- BINDING 2 PROTEIN, IGE	IMMUNE SYSTEM HIGH AFFINITY IGE-FC RECEPTOR, FC(EPSILON) IGE-FC; IMMUNOGLOBULIN FOLD, GLYCOPROTEN, RECEPTOR, IGE- BINDING 2 PROTEIN, IGE	IMMUNE SYSTEM, MEMBRANE PROTEIN CD32; FC RECEPTOR, IMMUNOGLOULIN, LEUKOCYTE, CD32	IMMUNE SYSTEM, MEMBRANE PROTEIN CD32; PC RECEPTOR,
Coumpound	RECEPTOR CHAIN: A; IG EPSILON CHAIN C REGION; CHAIN: B, D;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A; IG EPSILON CHAIN C REGION; CHAIN: B, D;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A; IG EPSILON CHAIN C REGION; CHAIN: B, D;	HIGH AFFINITY IMMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A; IG EPSILON CHAIN C REGION; CHAIN: B, D;	HIGH AFFINITY INMUNOGLOBULIN EPSILON RECEPTOR CHAIN: A; IG EPSILON CHAIN C REGION; CHAIN: B, D;	FC RECEPTOR FC(GAMMA)RIIA; CHAIN: A;	FC RECEPTOR FC(GAMMA)RIIA; CHAIN: A;
SEQFOL D score							
PMF score		-0.11	0.11	0.10	0.65	0.55	98.0
Verify score		0.20	-0.14	0.27	0.11	0.38	0.28
Psi Blast		1e-16	1.4e-20	1.5e-19	1.5e-15	1.2e-17	3e-19
END AA		152	795	006	666	534	148
STAR T AA		s	646	740	821	349	37
CHAI N ID		∢	.	¥	¥	٧	∀
PDB ID		1f6a	1f6a	1f6a	1f6a	lfcg	1fcg
SEQ NO.		1508	1508	1508	1508	1508	1508

PDB annotation	IMMUNOGLOULIN, LEUKOCYTE, CD32	IMMUNE SYSTEM, MEMBRANE PROTEIN CD32; FC RECEPTOR, IMMUNOGLOULIN, LEUKOCYTE, CD32	IMMUNE SYSTEM, MEMBRANE PROTEIN CD32; FC RECEPTOR, IMMUNOGLOULIN, LEUKOCYTE, CD32	CONTRACTILE PROTEIN IMMUNOGLOBULIN FOLD, BETA BARREL	CONTRACTILE PROTEIN IMMUNOGLOBULIN FOLD, BETA BARREL	IMMUNE SYSTEM RECEPTOR BETA SANDWICH, IMMUNOGLOBULIN- LIKE, RECEPTOR	IMMUNE SYSTEM RECEPTOR BETA SANDWICH, IMMUNOGLOBULIN- LIKE, RECEPTOR	COMPLEX (HIV ENVELOPE PROTEIN/CD4/FAB) COMPLEX (HIV ENVELOPE PROTEIN/CD4/FAB), HIV-1 EXTERIOR 2 ENVELOPE GP120, T-CELL SURFACE GLYCOPROTEIN CD4, 3 ANTIGEN- BINDING FRAGMENT OF HUMAN IMMUNOGLOBULIN 17B, 4 GLYCOSYLATED PROTEIN	
Coumpound		FC RECEPTOR FC(GAMMA)RIIA; CHAIN: A;	FC RECEPTOR FC(GAMMA)RIIA; CHAIN: A;	TELOKIN; CHAIN: A	TELOKIN; CHAIN: A	LOW AFFINITY IMMUNOGLOBULIN GAMMA FC REGION CHAIN: A;	LOW AFFINITY IMMUNOGLOBULIN GAMMA FC REGION CHAIN: A;	ENVELOPE PROTEIN GP120; CHAIN: G; CD4; CHAIN: C; ANTIBODY 17B; CHAIN: L, H;	TLYMPHOCYTE ADHESION GLYCOPROTEIN CD2 (RAT) 1HNG 3
SEQFOL D score									
PMF score		0.43	0.53	0.03	0.00	0.54	0.41	09:0	90.0
Verify score		0.02	-0.26	0.20	-0.28	0.29	0.03	0.17	-0.34
Psi Blast	-	66-19	6.8e-17	8.5e-16	8.5e-17	3e-18	3.4e-16	1.7e-15	6e-19
END		645	266	1186	447	148	796	518	703
STAR T AA		456	820	1085	347	36	646	352	557
CHAI N ID		4	<	4	4	4	Y	L	A
PDB ID		1fcg	1fcg	1fhg	1fhg	1fn[1fbl	1gcl	1hng
SEQ ID NO:		1508	1508	1508	1508	1508	1508	1508	1508

PDB annotation		COMPLEX (IMMUNOGLOBULIN/RECEPTOR) IMMUNOGLOBULIN FOLD, TRANSMEMBRANE, GLYCOPROTEIN, RECEPTOR, 2 SIGNAL, COMPLEX (IMMUNOGLOBULIN/RECEPTOR)	COMPLEX (IMMUNOGLOBULIN/RECEPTOR) IMMUNOGLOBULIN FOLD, TRANSMEMBRANE, GLYCOPROTEIN, RECEPTOR, 2 SIGNAL, COMPLEX (IMMUNOGLOBULIN/RECEPTOR)	COMPLEX (IMMUNOGLOBULIN/RECEPTOR) IMMUNOGLOBULIN FOLD, TRANSMEMBRANE, GLYCOPROTEIN, RECEPTOR, 2 SIGNAL, COMPLEX (IMMUNOGLOBULIN/RECEPTOR)	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	IMMUNOGLOBULIN IMMUNOGLOBULIN, BENCE JONES PROTEIN		
Coumpound	TLYMPHOCYTE ADHESION GLYCOPROTEIN CD2 (RAT) IHNG 3	INTERLEUKIN-1 BETA; CHAIN: A; TYPE 1 INTERLEUKIN-1 RECEPTOR; CHAIN: B;	NTERLEUKIN-1 BETA; CHAIN: A; TYPE 1 INTERLEUKIN-1 RECEPTOR; CHAIN: B;	NTERLEUKIN-1 BETA; CHAIN: A; TYPE 1 NTERLEUKIN-1 RECEPTOR; CHAIN: B;	TWITCHIN; CHAIN; NULL;	LAMBDA III BENCE JONES PROTEIN CLE; CHAIN: A, B	IMMUNOGLOBULIN IMMUNOGLOBULIN GI (IGGI) (MCG) WITH A HINGE DELETION IMCO 3	IMMUNOGLOBULIN
SEQFOL D score							104.67	
PMF score	0.17	0.18	0.09	0.55	65.0	09:0		0.23
Verify score	90:0	-0.02	0.42	0.10	0.14	0.20		-0.05
Psi Blast	9e-15	1.5e-20	3e-20	1.7e-15	3.4e-14	8.5e-16	5.1e-17	1.5e-17
END	966	619	966	994	1185	531	543	884
STAR T AA	825	462	740	747	1084	355	143	538
CHAI N ID	4 '	Ф	а	В		¥	Н	Н
PDB ID	lhng	1itb	Tith	lith	Ikoa		lmco	1mco
SEQ NO B	1508	1508	1508	1508	1508	1508	1508	1508

PDB annotation		MUSCLE PROTEIN CONNECTIN, NEXTM5; CELL ADHESION, GLYCOPROTEIN, TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD, ALTERNATIVE SPLICING, SIGNAL, 3 MISCLE PROTEIN	MUSCLE PROTEIN CONNECTIN, NEXTMS, CELL ADHESION, GLYCOPROTEIN, TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD, ALTERNATIVE SPLICING, SIGNAL, 3 MUSCLE PROTEIN	MUSCLE PROTEIN CONNECTIN, NEXTM5; CELL ADHESION, GLYCOPROTEIN, TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD, ALTERNATIVE SPLICING, SIGNAL, 3 MUSCLE PROTEIN	MUSCLE PROTEIN CONNECTIN, NEXTM5; CELL ADHESION, GLYCOPROTEIN, TRANSMEMBRANE, REPEAT, BRAIN, 2 IMMUNOGLOBULIN FOLD, ALTERNATIVE SPLICING, SIGNAL, 3 MUSCLE PROTEIN	NHIBITORY RECEPTOR KILLER CELL INHIBITORY RECEPTOR; INHIBITORY RECEPTOR, NATURAL
Coumpound	IMMUNOGLOBULIN GI (IGGI) (MCG) WITH A HINGE DELETION IMCO 3	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;	PS8-CL42 KIR; CHAIN: NULL;
SEQFOL D score						
PMF score		0.53	0.00	-0.12	0.04	-0.07
Verify score		0.58	-0.53	0.16	0.46	0.11
Psi Blast		1.7e-14	3.46-11	5.1e-15	1.7e-13	3.4e-10
END AA		1185	262	449	721	149
STAR T AA		1086	178	349	643	26
CHAI N ID						
PDB ID		Inct	Inct	Inct	Inct	lnkr
SEQ D NO:		1508	1508	1508	1508	1508

	r	r			r			_
PDB annotation	KILLER CELLS, IMMUNOLOGICAL 2 RECEPTORS, IMMUNOGLOBULIN FOLD	INHIBITORY RECEPTOR KILLER CELL INHIBITORY RECEPTOR; INHIBITORY RECEPTOR, NATURAL KILLER CELLS, IMMUNOLOGICAL 2 RECEPTORS, IMMUNOGLOBULIN FOLD		•			CELL ADHESION PROTEIN VCAM- D1,2; IVCA 6 IMMUNOGLOBULIN SUPERFAMILY, INTEGRIN-BINDING	CELL ADHESION PROTEIN VCAM-
Coumpound		PS8-CL42 KIR; CHAIN: NULL;	MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) ITNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) ITNM 4 ITNM 58	MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) 1TNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) 1TNM 4 1TNM 58	MUSCLE PROTEIN TITIN MODULE MS (CONNECTIN) ITNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) ITNM 4 ITNM 58	MUSCLE PROTEIN TITIN MODULE M5 (CONNECTIN) 1TNM 3 (NMR, MINIMIZED AVERAGE STRUCTURE) 1TNM 4 1TNM 58	HUMAN VASCULAR CELL ADHESION MOLECULE-1; IVCA 4 CHAIN: A, B; IVCA 5	HUMAN VASCULAR CELL
SEQFOL D score								
PMF score		0.13	0.35	0.00	-0.15	0.04	0.72	0.00
Verify score		-0.01	0.63	-0.22	0.30	0.50	-0.05	-0.15
Psi Blast		1.7e-23	1.7e-14	3.4e-11	1.5e-09	1.7e-13	4.5e-15	4.5e-13
END AA		995	1185	262	61	721	538	089
STAR T AA		813	1088	178	7	643	397	557
CHAI N ID							Ą	A
PDB CI		lnkr	Jtnm	1tmm	1tnm	ltnm	lvca	Ivca
SEQ NO:		1508	1508	1508	1508	1508	1508	1508

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PDB annotation	DI,2; IVCA 6 IMMUNOGLOBULIN SUPERFAMILY, INTEGRIN-BINDING IVCA 15	GLYCOPROTEIN CD4; IMMUNOGLOBULIN FOLD, TRANSMEMBRANE, GLYCOPROTEIN, T-CELL, 2 MHC LIPOPROTEIN, POLYMORPHISM	GLYCOPROTEIN CD4; IMMUNOGLOBULIN FOLD, TRANSMEMBRANE, GLYCOPROTEIN, T-CELL, 2 MHC LIPOPROTEIN, POLYMORPHISM	GLYCOPROTEIN CD4; IMMUNOGLOBULIN FOLD, TRANSMEMBRANE, GLYCOPROTEIN, T-CELL, 2 MHC LIPOPROTEIN, POLYMORPHISM	CELL ADHESION ICAM-2; IMMUNOGLOBULIN FOLD, CELL ADHESION, GLYCOPROTEIN, 2 TRANSMEMBRANE, REPEAT, SIGNAL	IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULN	IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULN	IMMUNE SYSTEM PS8 NATURAL
Coumpound	ADHESION MOLECULE-1; IVCA 4 CHAIN: A, B; IVCA 5	T-CELL SURFACE GL YCOPROTEIN CD4; CHAIN: A, B;	T-CELL SURFACE GLYCOPROTEIN CD4; CHAIN: A, B;	T-CELL SURFACE GLYCOPROTEIN CD4; CHAIN: A, B;	INTERCELLULAR ADHESION MOLECULE-2; CHAIN: NULL;	MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	MHC CLASS I NK CELL
SEQFOL D score								
PMF		0,41	0.13	0.68	0.05	-0.09	0.05	0.19
Verify score		0.09	-0.11	0.06	-0.09	0.19	0.28	0.00
Psi Blast		1.2e-26	6e-26	6e-23	1.5e-16	1.2e-19	4.5e-24	3e-16
END		703	882	1068	0001	534	643	723
STAR T AA		364	552	740	821	347	451	536
CHAI		V	¥	4		V	4	A
809 81		1wio	Iwio	1wio	lzxq	2dli	2dli	2dli
SEQ D NO.		1508	1508	1508	1508	1508	1508	1508

SEQ ID NO:	PDB ID	CHAI N ID	STAR T AA	END	Psi Blast	Verify score	PIMF score	SEQFOL D score	Coumpound	PDB annotation
									RECEPTOR PRECURSOR; CHAIN: A;	KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULIN
1508	2dli	V	19	256	3e-21	0.20	0.23		MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULIN
1508	2dli	٧	7	148	1.2e-09	0.22	-0.06		MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULIN
1508	2dli	٧	813	166	5.16-22	0.17	-0.06		MHC CLASS I NK CELL RECEPTOR PRECURSOR; CHAIN: A;	IMMUNE SYSTEM PS8 NATURAL KILLER CELL RECEPTOR; KIR, NATURAL KILLER RECEPTOR, INHIBITORY RECEPTOR, 2 IMMUNOGLOBULIN
1508	2fcb	¥	152	349	7.5e-15	0.01	-0.02		FC GAMMA RIIB; CHAIN: A;	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM
1508	2fcb	٧	349	237	3.4e-18	0.25	0.27		FC GAMMA RIB; CHAIN: A;	IMMUNE SYSTEM CD32; RECEPTOR, PC, CD32, IMMUNE SYSTEM
1508	2fcb	A	37	151	7.5e-21	0.28	0.75		FC GAMMA RUIB; CHAIN: A;	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM
1508	2fcb	٠	415	536	3e-20	-0.04	9.0		FC GAMMA RIB; CHAIN: A;	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM
1508	2fcb	¥	528	724	12e-16	61.0	9.65		FC GAMMA RIIB; CHAIN: A;	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM
1508	2fcb	٧	740	868	3e-20	0.38	0.47		FC GAMMA RIIB; CHAIN: A;	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM
1508	2fcb	А	820	666	3.4e-17	0.04	0.00		FC GAMMA RIB; CHAIN: A;	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM
1508	2fcb	Ą	825	866	4.5e-19	80.0	-0.05		FC GAMMA RIIB; CHAIN: A;	IMMUNE SYSTEM CD32; RECEPTOR,

PDB annotation	FC, CD32, IMMUNE SYSTEM	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM	CELL ADHESION PROTEIN NCAM MODULE 2; CELL ADHESION, GLYCOPROTEIN, HEPARIN- BINDING, GPI-ANCHOR, 2 NEURAL ADHESION MOLECULE, IMMUNOGLOBULIN FOLD, HOMOPHILIC 3 BINDING, CELL ADHESION PROTEIN		 HYDROLASE PNB ESTERASE; ALPHA-BETA HYDROLASE, DIRECTED EVOLUTION, ORGANIC ACTIVITY, 2 PNB ESTERASE	CHOLINESTERASE SERINE HYDROLASE, NEUROTRANSMITTER CLEAVAGE, CATALYTIC 2 TRIAD, ALPHA/BETA HYDROLASE	HYDROLASE MACHE; HYDROLASE, SERINE ESTERASE, ACETYLCHOLINESTERASE, TETRAMER, 2 HYDROLASE FOLD, GLYCOSYLATED PROTEIN	HYDROLASE BILE SALT ACTIVATED LIPASE, BILE SALT STIMULATED HYDROLASE, SERINE ESTERASE, LIPASE
Coumpound		FC GAMMA RITB; CHAIN: A;	NEURAL CELL ADHESION MOLECULE, LARGE ISOFORM; CHAIN: A;	IMMUNOGLOBULIN FAB FRAGMENT FROM HUMAN IMMUNOGLOBULIN IGG1 (LAMBDA, HIL) 8FAB 3	PARA-NITROBENZYL ESTERASE; CHAIN: A;	ACETYLCHOLINESTERASE; CHAIN: A;	ACETYLCHOLINESTERASE; CHAIN: A, B, C, D;	CHOLESTEROL ESTERASE; CHAIN: NULL;
SEQFOL D score								
PMF score		0.70	0.12	0.47	0.22	0.12	0.43	0.06
Verify score		0.00	0.42	0.05	-0.24	-0.23	-0.29	-0.50
Psi Blast		3e-18	1.7e-12	5.1e-18	9e-13	16-21	5.1e-22	3,4e-19 .
END AA		1086	722	529	2	73	73	74
STAR T AA		917	642	353	4	က	E	3
CHAI N ID		¥	∢	A	V	¥	∢	
PDB ID		2fcb	Зпст	8fab	1c7j	leaS	lmaa	2bce
SEQ NO ID		1508	1508	1508	1510	1510	1510	1510

PDB annotation	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ADR1, ZINC FINGER, NMR	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ADRI, ZINC FINGER, NMR	PRO REGION PRO REGION, FOLDASE, PROTEIN FOLDING, SERINE PROTEASE	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX BUNDLE	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS
Coumpound	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	ADR1; CHAIN: NULL;	ADRI; CHAIN: NULL;	ALPHA-LYTIC PROTEASE; CHAIN: A, B, C;	SYNTAXIN-1A; CHAIN: A, B, C;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;
SEQFOL D score							
PMF	-0.11	0.03	-0.20	-0.19	60.0	1.00	1.00
Verify	0.14.	-0.78	60:0	0.03	-0.01	0.21	0.34
Psi Blast	3.4e-08	5.1e-11	1.7e-11	4.5e-10	4.5e-09	5.1e-25	36-34
END AA	274	39	446	166	543	200	469
STAR T AA	241		403	81	432	164	243
CHAI	Ð			4	A	4	4
20 E	lmey	2adr	2adr	2pro	lez3	1a4y	la4y
SEQ NO ED	1512	1512	1512	1514	1515	1521	1521

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PDB annotation	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (NHIBITOR/NUCLEASE) COMPLEX (NHIBITOR/NUCLEASE), COMPLEX (NJANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (NHIBITOR/NUCLEASE) COMPLEX (NHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N-
Coumpound	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;	RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT; CHAIN: A, C; RAB
SEQFOL D score			113.01				
PMF score	1.00	0.95		06'0	0.48	0.39	0.19
Verify score	0.51	0.05	·	-0.03	-0.27	-0.30	0.07
Psi Blast	3e-35	3.4e-24	6.8e-32	6.8e-32	1.2e-23	1.7e-21	1.7e-10
END AA	469	407	496	471	438	495	474
STAR T AA	282	2	2	98	267	316	350
CHAI N ID	· ∀	∢	∢	¥	⋖	∢	¥.
PDB ID	1a4y	1a4y	la4y	1a4y	1405	140b	1dce
SEQ ID NO:	1521	1521	1521	1521	1521	1521	1521

PDB annotation	FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	RNA BINDING PROTEIN TAP (NFXI); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	LIGASE CYCLIN A/CDK2- ASSOCIATED PROTEIN P45; CYCLIN A/CDK2-ASSOCIATED PROTEIN P19; SKP1, SKP2, F-BOX, LRR, LEUCINE- RICH REPEAT, SCF, UBIQUITIN, 2 E3, UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2- ASSOCIATED P45; CYCLIN A/CDK2- ASSOCIATED P19; SKP1, SKP2, F- BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	TRANSCRIPTION RNA IP; RANGAP; GTPASE-ACTIVATING PROTEIN FOR SPII, GTPASE-ACTIVATING PROTEIN, GAP, RNA IP, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, MEROHEDRAL TWINNING,	TRANSCRIPTION RNAIP; RANGAP; GTPASE-ACTIVATING PROTEIN
Coumpound	GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN: B, D;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	SKP2; CHAIN: A, C, E, G, I, K, M, O; SKP1; CHAIN: B, D, F, H, J, L, N, P,	SKP2; CHAIN: A, C; SKP1; CHAIN: B, D;	GTPASE-ACTIVATING PROTEIN RNAI_SCHPO; CHAIN: A, B;	GTPASE-ACTIVATING PROTEIN RNA1_SCHPO;
SEQFOL D score					,		
PMF		0.39	0.28	0.03	0.51	0.55	0.98
Verify score		-0.04	-0.07	0.00	0.08	0.08	0.17
Psi Blast		1.5e-06	1.5e-06	1.7e-12	8.5e-13	6.8e-19	5.1e-21
END		471	471	512	514	418	474
STAR T AA		401	401	254	323	157	215
CHAI N ID		¥	В	∢	4	Α	4
PDB CII		1601	161	Ifqv	1fs2	Lyrg	lyrg
SEQ B B		1521	1521	1521	1521	1521	1521

PDB annotation	FOR SPI1, GTPASE-ACTIVATING PROTEIN, GAP, RNAIP, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, MEROHEDRY	TRANSCRPTION RNAIP; RANGAP; GTPASE-ACTIVATING PROTEIN FOR SPII, GTPASE-ACTIVATING PROTEIN, GAP, RNAIP, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, MEROHEDRAL TWINNING,	TRANSCRIPTION RNAIP; RANGAP; GTPASE-ACTIVATING PROTEIN FOR SPII, GTPASE-ACTIVATING PROTEIN, GAP, RNAIP, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, MEROHEDRAL TWINNING,	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS
Coumpound	CHAIN: A, B;	GTPASE-ACTIVATING PROTEIN RNA1_SCHPO; CHAIN: A, B;	GTPASE-ACTIVATING PROTEIN RNA1_SCHPO; CHAIN: A, B;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;
SEQFOL D score				109.97	
PMF score		0.55	0.28		0.81
Verify		0.11	0.10		0.12
Psi Blast		4.5e-30	3.4e-09	8.5e-46	8.5e-46
END AA		469	508	491	511
STAR T AA		243	348	42	89
CHAI N ID		A	A		
PDB ID		Тутв	1утв	2bnh	2bnh
SEQ NO:		1521	1521	1521	1521

PDB annotation	CONTRACTILE PROTEIN TROPOMYOSIN COLLED-COIL ALPHA-HELICAL, CONTRACTILE PROTEIN	TRANSMEMBRANE PROTEIN COLICIN, BACTERIOCIN, ION CHANNEL FORMATION, TRANSMEMBRANE 2 PROTEIN	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELLX BUNDLE	ISOMERASE ISOMERASE, MUTASE, INTRAMOLECULAR TRANSFERASE	LIGASE CYCLIN A/CDK2- ASSOCIATED PROTEIN P45; CYCLIN A/CDK2-ASSOCIATED PROTEIN P19; SKP1, SKP2, F-BOX, LRR, LEUCINE- RICH REPEAT, SCF, UBIQUITIN, 2 E3, UBIQUITIN PROTEIN LIGASE	LIGASE SKP2 F-BOX; SKP1; SKP1, SKP2, F-BOX, LRR, LEUCINE-RUCH REPEAT, SCF, UBIQUITIN, 2 E3, UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2- ASSOCIATED P45; CYCLIN A/CDK2- ASSOCIATED P19; SKP1, SKP2, F- BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	TRANSCRIPTION TUMOR SUPPRESSOR, CANCER, UBIQUITIN, BETA SANDWICH, 2
Coumpound	TROPOMYOSIN; CHAIN: A, B, C, D	COLICIN IA; CHAIN: NULL;	SYNTAXIN-1A; CHAIN: A, B, C;	METHYLMALONYL-COA MUTASE; CHAIN: A, B, C, D;	SKP2; CHAIN: A, C, E, G, I, K, M, O; SKP1; CHAIN: B, D, F, H, J, L, N, P;	CYCLIN A/CDK2-ASSOCIATED P19; CHAIN: A, C; CYCLIN A/CDK2-ASSOCIATED P45; CHAIN: B, D;	SKP2; CHAIN: A, C; SKP1; CHAIN: B, D;	ELONGIN B; CHAIN: A, D, G, J; ELONGIN C; CHAIN: B, E, H, K; VHL; CHAIN: C, F, I, L;
SEQFOL D score								
PMF	-0.20	-0.20	-0.14	-0.20	1.00	0.62	0.99	1.00
Verify score	0.46	0.36	0.36	0.11	0.78	0.21	0.48	0.76
Psi Blast	4.5e-08	1.5e-08	1.1e-12	4.5e-08	1.7e-24	1.7e-24	1.7e-24	3.4e-16
END AA	142	142	143	142	82	82	82	08
STAR T AA	½	05	95	20	17	17	17	17
CHAI N ID	¥		Ą	4	В	В	В	В
PDB UD	lcig	1cii	1ez3	lreq	1fqv	18:1	1fs2	Ivcb
SEQ NO.	1522	1522	1522	1522	1523	1523	1523	1523

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PDB annotation	TRANSCRIPTION, TRANSCRIPTIONAL ELONGATION	TRANSCRIPTION TUMOR SUPPRESSOR, CANCER, UBIQUITIN, BETA SANDWICH, 2 TRANSCRIPTION, TRANSCRIPTIONAL ELONGATION	PHOSPHOTRANSFERASE RHOGAP DOMAIN; PHOSPHOTRANSFERASE, TPASE ACTIVATING PROTEIN, GAP, CDC42, 2 PHOSPHOINOSITIDE 3- KINASE, SH3 DOMAIN, SH2	DOMAIN, 3 SIGNAL TRANSDUCTION	PHOSPHOTRANSFERASE RHOGAP DOMAIN; PHOSPHOTRANSFERASE, TPASE ACTIVATING PROTEIN, GAP, CDC42, 2 PHOSPHOINOSITIDE 3- KINASE, SH3 DOMAIN, SH2	TRANSDUCTION	PHOSPHOTRANSFERASE RHOGAP DOMAIN; PHOSPHOTRANSFERASE,	CDC42, 2 PHOSPHOINOSITIDE 3-	KINASE, SH3 DOMAIN, SH2	DOMAIN, 3 SIGNAL TRANSDUCTION	PHOSPHOTRANSFERASE RHOGAP	DOMAIN; PHOSPHOTRANSFERASE, TPASE ACTIVATING PROTEIN GAP	CDC42, 2 PHOSPHOINOSITIDE 3- KINA SE. SH3 DOMA IN. SH2
Coumpound		ELONGIN B; CHAIN: A, D, G, J; ELONGIN C; CHAIN: B, E, H, K; VHL; CHAIN: C, F, I, L;	PHOSPHATIDYLINOSITOL 3- KINASE; CHAIN: A, B;		PHOSPHATIDYLINOSITOL 3- KINASE; CHAIN: A, B;		PHOSPHATIDYLINOSITOL 3- KINASE; CHAIN: A, B;				PHOSPHATIDYLINOSITOL 3-	KINASE; CHAIN: A, B;	
SEQFOL D score		52.02					67.87						
PMF score			0.63		1.00						0.76		
Verify score			0.10		0.57						60.0		
Psi Blast		3.4e-16	6.8e-19		4.5e-35		3e-36				6.8e-19		
AA AA		84	291		304		312				291		
STAR T AA		17	122		125		107				122		
CHAI N ID		В	¥		∢		Д				В		
EUB UI		Ivcb	1pbw		1pbw		1pbw				Ipbw		
SEQ NO.		1523	1524		1524		1524				1524		

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PDB annotation	DOMAIN, 3 SIGNAL TRANSDUCTION	PHOSPHOTRANSFERASE RHOGAP DOMAIN; PHOSPHOTRANSFERASE,	TPASE ACTIVATING PROTEIN, GAP,	CDC42, 2 PHOSPHOINOSITIDE 3- KINASE, SH3 DOMAIN, SH2	DOMAIN, 3 SIGNAL TRANSDUCTION	G-PROTEIN CDC42 GTPASE-	ACTIVATING PROTEIN; G-PROTEIN, GAP SIGNAL TP ANSINICATION	G-PROTEIN CDC42 GTPASE.	ACTIVATING PROTEIN; G-PROTEIN,	GAP, SIGNAL-TRANSDUCTION	G-PROTEIN CDC42 GTPASE-	ACTIVATING PROTEIN, G-PROTEIN,	GAP, SIGNAL-IRANSDUCTION	COMPLEX(GTPASE	ACTIVATN/PROTO-ONCOGENE)	GIPASE-ACIIVALING PROTEIN	KHOGAL; COMPLEX (GIPASE	GTPASE 2 TRANSITION STATE GAP	COMPLEX(GTPASE	ACTIVATN/PROTO-ONCOGENE)	GTPASE-ACTIVATING PROTEIN	RHOGAP; COMPLEX (GTPASE	ACTIVATION/PROTO-ONCOGENE),	GTPASE, 2 TRANSITION STATE, GAP	COMPLEX(GTPASE ACTIVATIV/PROTO-ONCOGENE)	GTPASE-ACTIVATING PROTEIN	RHOGAP; COMPLEX (GTPASE
Coumpound		PHOSPHATIDYLINOSITOL 3- KINASE; CHAIN: A, B;				RHOGAP; CHAIN: NULL;		RHOGAP: CHATN: NITL I:			RHOGAP; CHAIN: NULL;			P50-RHOGAP; CHAIN: A;	TRANSFORMING PROTEIN	KHUA; CHAIN: B;			P50-RHOGAP: CHAIN: A:	TRANSFORMING PROTEIN	RHOA; CHAIN: B;				P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN	RHOA; CHAIN: B;	
SEQFOL D score					•						92.76														107.06		
PMF score		0.95				1.00		0.54	-					1.00					1.00								
Verify score		0.44			•	0.77		80.0						0.88					0.18								
Psi Blast		3e-36				1.5e-37		16.29	ì		1.5e-37			7.5e-39					1.7e-29						7.5e-39		
END		311				308		777	: i		308			308					304						308		
STAR T AA		125				112		88	3		88			112					91						16		
CHAI N ID		Ф												∀					4						∢		-
PDB CD		1pbw				1rgp		lron	ò		1rgp			1tx4					15x4						1tx4		
SEQ ID NO:		1524				1524		1524			1524			1524					1524						1524		

PDB annotation	ACTIVATION/PROTO-ONCOGENE), GTPASE, 2 TRANSITION STATE, GAP	UBIQUITIN CONJUGATION UBC2; UBIQUITIN CONJUGATING UBIQUITIN-CONJUGATING ENZYME	UBIQUITIN CONJUGATION UBC2; UBIQUITIN CONJUGATING UBIQUITIN-CONJUGATING ENZYME	LIGASE E6AP; UBCH7; BILOBAL STRUCTURE, ELONGATED SHAPE, E3 UBIQUITIN LIGASE, E2 2 UBIQUITIN CONJUGATING ENZYME	LIGASE E6AP; UBCH7; BILOBAL STRUCTURE, ELONGATED SHAPE, E3 UBIQUITIN LIGASE, E2 2 UBIQUITIN CONJUGATING ENZYME	LIGASE UBIQUITIN, UBIQUITIN- CONJUGATING ENZYME, YEAST	LIGASE UBIQUITIN, UBIQUITIN- CONJUGATING ENZYME, YEAST	UBIQUITIN-CONJUGATING ENZYME UBIQUITIN- CONJUGATING ENZYME; UBIQUITIN-CONJUGATING ENZYME, UBIQUITIN-DIRECTED 2 PROTEOLYSIS, CELL CYCLE CONTROL, LIGASE	UBIQUITIN-CONJUGATING ENZYME UBIQUITIN- CONJUGATING ENZYME; UBIQUITIN-CONJUGATING
Coumpound		UBIQUITIN-CONJUGATING ENZYME RAD6; CHAIN: A, B, C;	UBIQUITIN-CONIUGATING ENZYME RAD6; CHAIN: A, B, C;	UBIQUITIN-PROTEIN LIGASE E3A; CHAIN: A, B, C; UBIQUITIN CONJUGATING ENZYME E2; CHAIN: D;	UBIQUITIN-PROTEIN LIGASE E3A; CHAIN: A, B, C; UBIQUITIN CONJUGATING ENZYME E2; CHAIN: D;	UBIQUITIN CONJUGATING ENZYME; CHAIN: A;	UBIQUITIN CONJUGATING ENZYME; CHAIN: A;	UBC9; CHAIN: NULL;	UBC9; CHAIN: NULL;
SEQFOL D score		92.22			80.53		106.20		73.11
PMF score			1.00	0.99		1.00		00.1	
Verify score				0.36		0.57		0.83	
Psi Blast		1e-40	le-40	8.5e-33	8.5e-33	3.4e-51	3.4e-51	3.4e-38	3.4e-38
END AA		134	128	129	129	130	131	130	131
STAR T AA		-	4	S	5		4		-
CHAI		∢	K	Ω	D	٧	¥	∢	4
PDB ID		layz	layz	1c4z	1c4z	1qcq	1qcq	1u9a	lu9a
SEQ ID NO:		1525	1525	1525	1525	1525	1525	1525	1525

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PDB annotation	ENZYME, UBIQUITIN-DIRECTED 2 PROTEOLYSIS, CELL CYCLE CONTROL, LIGASE	UBIQUITIN CONJUGATION UBCI; UBIQUITIN CONJUGATION, LIGASE	UBIQUITIN CONJUGATION UBCI; UBIQUITIN CONJUGATION, LIGASE	UBIQUITIN CONJUGATION UBIQUITIN CONJUGATION, UBIQUITIN CARRIER PROTEIN, THIOESTER 2 BOND, LIGASE	UBIQUITIN CONJUGATION UBIQUITIN CONJUGATION, UBIQUITIN CARRIER PROTEIN, THIOESTER 2 BOND, LIGASE	UBIQUITIN CONJUGATION UBC7; UBIQUITIN CONJUGATION, LIGASE, YEAST	UBIQUITIN CONJUGATION UBC7; UBIQUITIN CONJUGATION, LIGASE, YEAST	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS
Coumpound		UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	UBIQUITIN CONJUGATING ENZYME; CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;
SEQFOL D score		96.00		82.57		77.96			67.17
PMF score			1.00		1.00		1.00	0.03	
Verify			0.49		0.66		0.80	-0.14	
Psi Blast		1.2e-41	1.2e-41	1.5e-37	1.5e-37	1.7e-36	1.7e-36	5.1e-19	3.4e-18
END		126	127	132	124	132	128	338	473
STAR T AA		-	_		E.	2	£	10	10
CHAI N ID								¥	¥
PDB ID		2aak	2aak	2e2c	2e2c	2ucz	Zucz	184y	la4y
SEQ BO		1525	1525	1525	1525	1525	1525	1527	1527

PDB annotation	COMPLEX (INFIBITOR/NUCLEASE) COMPLEX (INFIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN
Coumpound	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	UZ RNA HAIRPIN IV; CHAIN: Q, R; UZ A'; CHAIN: A, C; UZ B"; CHAIN: B, D;	UZ RNA HAIRPIN IV; CHAIN: Q, R; UZ A'; CHAIN: A, C; UZ B"; CHAIN: B, D;	UZ RNA HAIRPIN IV; CHAIN: Q, R; UZ A'; CHAIN: A, C; UZ B"; CHAIN: B, D;
SEQFOL D score							
PMF score	0.68	0.76	66'0	09:0	0.01	0.22	0.13
Verify score	0.07	0.27	0.36	0.50	0.25	0.36	0.18
Psi Blast	9e-28	3.4e-18	1.5e-34	3e-25	7.5e-24	1.5e-14	3.4e-07
END AA	335	415	309	284	291	326	339
STAR T AA	134	25	99	140	164	212	232
CHAI N ID	Ą	∢	∢	V	4	V	V
PDB TD	la4y	la4y	1a4y	la9n	la9n	la9n	la9n
SEQ NO.	1527	1527	1527	1527	1527	1527	1527

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PDB annotation		COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA,	COMPLEX OUTSI FAR	PROTEINRNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR	PROTEINRNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA, SNRNP RIBONI ICI EOPROTEIN	COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA,	SNKNP, KIBONUCLEOPKO JEIN	COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN'RNA), RNA, SNRNP.RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA,	SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA,	SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX
Coumpound		U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	113 PNA HATPBIN IV. CHAIN: O	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;	•	U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;		U2 RNA HAIRPIN IV; CHAIN: Q,	R; U2 A'; CHAIN: A, C; U2 B";	CHAIN: B, D;		U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B";
SEQFOL D score																-										
PMF score		0.68	800	0.70		0.43		0.45			0.27				0.00			0.43				96'0				0.70
Verify		0.42	0.16	2.0		0.23		0.25			0.37				0.03			0.36				0.37				0.16
Psi Blast		1.7e-07	150 21	+7-ac-1		3e-26		4.5e-26			9e-15				3.4e-05			1.7e-07				3e-24				1e-24
END		146	197	è		234	,	290			326				95			146				. 181				215
STAR		43	7	<u> </u>		25		140			212				23			43				51				89
CHAI	:	∢	<	<		A		C			O				ပ			C				၁				၁
PDB		la9n	1001	IRAII		la9n		la9n			la9n				la9n		_	1a9n				la9n				la9n
SEQ	NO.	1527	1527	7761		1527		1527			1527		,,		1527			1527				1527				1527

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PDB annotation	(NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), KNA, SNRNP, RIBONUCLEOPROTEIN	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL	CELL ADHESION LEUCINE RICH	REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	TRANSFERASE CRYSTAL	STRUCTURE, RAB	CERAIN LUERAIN I LI RAINSFERASE, 2.0 A 2 RESOLUTION, N-	FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT		CONTRACTILE PROTEIN LEUCINE.	RICH REPEAT, BETA-BETA-ALPHA	CYLINDEK, DYNEIN, Z CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE-	RICH REPEAT, BETA-BETA-ALPHA	CYLINDER, DYNEIN, 2	CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE-	CYLINDER DYNEIN 2	CHLAMYDOMONAS, FLAGELLA
Coumpound	CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B";	CHAIN: B, D;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;	•	INTERNALIN B; CHAIN: A;	RAB	GERANYLGERANYLTRANSFE	CHAIN: A. C. RAB	GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN:	В, D;	OUTER ARM DYNEIN; CHAIN:	A;		OUTER ARM DYNEIN; CHAIN:	A;			OUTER ARM DYNEIN; CHAIN:	ď	
SEQFOL D score																						
PMF score		0.69		66'0	0.10		0.70	0.15					0.06			-0.09	<u> </u>			0.23		
Verify score		0.43		0.35	-0.07		0.12	0.31					-0.40			0.12				-0.08		
Psi Blast		3e-26		8.5e-24	3.4e-18		3.4e-23	1.2e-10					1.5e-18			5.1e-15				1e-09		
END AA		234		311	377		188	121					291			338				145		
STAR T AA		25		129	228		4	21					167			217				43		
CHAI		ပ		A	٧		Ą	Ą					٧			A				∢		
PDB CI		1a9n		1d0b	140b		140b	Idee					1ds9			lds9				1489		
SEQ TD NO:		1527		1527	1527		1527	1527					1527			1527				1527		
							668															
										-												

PDB annotation	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	LIGASE CYCLIN A/CDK2- ASSOCIATED PROTEIN P45; CYCLIN A/CDK2-ASSOCIATED PROTEIN P19; SKP1, SKP2, F-BOX, LRR, LEUCINE- RICH REPEAT, SCF, UBIQUITIN, 2 E3, UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2- ASSOCIATED P45; CYCLIN A/CDK2- ASSOCIATED P19; SKP1, SKP2, F- BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2- ASSOCIATED P45; CYCLIN A/CDK2- ASSOCIATED P19; SKP1, SKP2, F- BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	TRANSCRIPTION RNA 1P; RANGAP; GTPASE-ACTTVA TING PROTEIN FOR SP11, GTPASE-ACTTVA TING PROTEIN, GAP, RNA 1P, RANGAP,
Coumpound	OUTER ARM DYNEIN; CHAIN: A;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	SKP2; CHAIN: A, C, B, G, I, K, M, O; SKP1; CHAIN: B, D, F, H, J, L, N, P;	SKP2; CHAIN: A, C; SKP1; CHAIN: B, D;	SKP2; CHAIN: A, C; SKP1; CHAIN: B, D;	GTPASE-ACTIVATING PROTEIN RNA1_SCHPO; CHAIN: A, B;
SEQFOL D score							
PMF score	0.15	0.01	0.30	0.36	-0.03	0.04	-0.03
Verify score	-0.39	-0.15	0.16	-0.05	0.21	0.00	0.16
Psi Blast	1.4e-11	3.4e-07	3,4e-07	1.5e-15	1.3e-20	5.1e-12	6.8e-12
END	235	308	308	347	334	311	360
STAR T AA	73	227	227	134	125	171	62
CEAI N ID	A	V	В	∢	, ∢	∢	A
PDB CO	1ds9	1fo1	1f01	1fqv	1fs2	1fs2	lyrg
SEQ NO:	1527	1527	1527	1527	1527	1527	1527

PDB annotation	LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, 3 MEROHEDRAL TWINNING,	TRANSCRIPTION RNA1P; RANGAP; GTPASE-ACTIVATING PROTEIN FOR SP11, GTPASE-ACTIVATING PROTEIN, GAP, RNA1P, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, MEROHEDRAL TWINNING,	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	POTASSIUM CHANNELS POTASSIUM CHANNELS, TETRAMERIZATION DOMAIN, X-RAY 2 STRUCTURE, APLYSIA KVI.1	SIGNALING PROTEIN VOLTAGE- GATED POTASSIUM CHANNEL, ASSEMBLY DOMAIN, TETRAMER	METAL TRANSPORT ION CHANNEL, OXIDOREDUCTASE, BETA SUBUNIT	SIGNALING PROTEIN VOLTAGE-
Coumpound		GTPASE-ACTIVATING PROTEIN RNAI_SCHPO; CHAIN: A, B;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	POTASSIUM CHANNEL KVI.1; CHAIN: NULL;	KV1.2 VOLTAGE-GATED POTASSIUM CHANNEL; CHAIN: A, B, C, D, E, F, G, H;	KV BETA2 PROTEIN; CHAIN: A; POTASSIUM CHAINNEL KVI.1; CHAIN: E;	KVI.2 VOLTAGE-GATED
SEQFOL D score								
PMF score		0.15	0.74	0.81	0.86	0.28	0.41	0.43
Verify		0.11	0.08	0.01	0.66	0.09	0.48	0.48
Psi Blast		1e-30	1.2e-22	1.2e-40	1.5e-13	7.5c-12	1.2e-11	3e-12
END		265	413	312	207	204	210	208
STAR T AA		98	25	26	117	117	111	117
CHAI N ID		¥ .				4	ല	A
PDB TD		lyrg	2bnh	2bnh	1a68	1dsx	lexb	1qdv
SEQ No u		1527	1527	1527	1528	1528	1528	1528

PDB annotation	GATED POTASSIUM CHANNEL, TETRAMERIZATION DOMAIN, 2 INTRACELLULAR GATE, TETRAMER	PROTON TRANSPORT POTASSIUM CHANNELS, TETRAMERIZATION DOMAIN, X-RAY STRUCTURE, 2 APLYSIA KV1.1, PROTON TRANSPORT	POTASSIUM CHANNEL POTASSIUM CHANNEL, TETRAMERIZATION DOMAIN, MOLECULAR 2 RECOGNITION, ZINC-BINDING	GUANINE NUCLEOTIDE EXCHANGE FACTOR RCC1; GUANINE NUCLEOTIDE EXCHANGE FACTOR, GEF, RAN, 2 RAS-LIKE NUCLEAR GTP BINDING PROTEIN HEADER	GUANINE NUCLEOTIDE EXCHANGE GUANINE NUCLEOTIDE EXCHANGE FACTOR RCC1; GUANINE NUCLEOTIDE EXCHANGE FACTOR, GEF, RAN, 2 RAS-LIKE NUCLEAR	TER	GUANINE NUCLEOTIDE EXCHANGE FACTOR RCC1; GUANINE: NUCLEOTIDE EXCHANGE FACTOR, GEF, RAN, 2 RAS-LIKE NUCLEAR GTP BINDING PROTEIN HEADER	GENE REGULATION SON OF SEVENLESS PROTEIN; GUANINE
Coumpound	POTASSIUM CHANNEL; CHAIN: A, B, C, D;	POTASSIUM CHANNEL KVI.1; CHAIN: A;	POTASSIUM CHANNEL PROTEIN SHAW; CHAIN: NULL;	REGULATOR OF CHROMOSOME CONDENSATION 1; CHAIN: A, B, C;	REGULATOR OF CHROMOSOME CONDENSATION 1; CHAIN: A, B, C;		REGULATOR OF CHROMOSOME CONDENSATION 1; CHAIN: A, B, C;	HUMAN SOS 1; CHAIN: A;
SEQFOL D score					97.41			
PMF score		0.45	0.62	 -0.08			0.22	0.22
Verify score		0.26	0.59	0.04			-0.01	-0.03
Psi Blast		1.3e-11	6e-15	1.7c-49	1.7e-49		6.8e-91	3e-16
END		204	217	704	741		415	1001
STAR T AA		117	117	346	354		6	969
CHAI N ID		∢		∢	∀		∢	A
PDB ID		1114	3kvt	1a12 ·	la12		la12	1dbh
SEQ EQ		1528	1528	1529	1529		1529	1529

PDB annotation	NUCLEOTIDE EXCHANGE FACTOR, GENE REGULATION	SIGNALING PROTEIN DAPPI, PHISH, BAM32; PLECKSTRIN, 3-PHOSPHOINOSITIDES, INOSITOL TETRAKISPHOSPHATE 2 SIGNAL TRANSDUCTION PROTEIN, ADAPTOR PROTEIN	SIGNALING PROTEIN DAPP1, PHISH, BAM32; PLECKSTRIN, 3-PHOSPHOINOSITIDES, INOSITOL TETRAKISPHOSPHATE 2 SIGNAL TRANSDUCTION PROTEIN, ADAPTOR PROTEIN		SIGNAL TRANSDUCTION SON OF SEVENLESS; PLECKSTRIN, SON OF SEVENLESS, SIGNAL TRANSDUCTION	CONTRACTILE PROTEIN ACIDIC PROFILIN ISOFORM, ACTIN-BINDING PROTEIN, POLY-L-2 PROLINE BINDING PROTEIN, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN ACIDIC PROFILIN ISOFORM, ACTIN-
Coumpound		DUAL ADAPTOR OF PHOSPHOTYROSINE AND 3- CHAIN: A;	DUAL ADAPTOR OF PHOSPHOTYROSINE AND 3- CHAIN: A;	PHOSPHORYLATION PLECKSTRIN (N-TERMINAL PLECKSTRIN HOMOLOGY DOMAIN) MUTANT 1PLS 3 WITH LEU GLU (HIS)6 ADDED TO THE C TERMINUS 1PLS 4 (INS(G105-LEHHHHHH)) (NMR, 25 STRUCTURES) 1PLS 5	SOS 1; CHAIN: NULL;	PROFILIN II; CHAIN: A, B, C, D;	PROFILIN II; CHAIN: A, B, C, D;
SEQFOL D score							
PMF		0.33	0.35	0.93	-0.02	1.00	00.1
Verify		-0.27	0.02	0.38	0.32	1.32	1.32
Psi Blast		7.5e-07	3e-07	0.0003	1.5e-09	6.8e-52	9e-63
END AA		1006	1007	1007	1004	138	138
STAR T AA		930	930	935	897	2	2
CHAI		∢	∢			∀	Ą
PDB ID		Ifao	1fb8	1 pls	1pms	141;	1d1j
SEQ ID NO.		1529	1529	1529	1529	1530	1530

PDB annotation	BINDING PROTEIN, POLY-L-2 PROLINE BINDING PROTEIN, CONTRACTILE PROTEIN	PROTEIN BINDING ACETYLATION, ACTIN-BINDING PROTEIN, MULTIGENE FAMILY	PROTEIN BINDING ACETYLATION, ACTIN-BINDING PROTEIN, MULTIGENE FAMILY					CONTRACTILE PROTEIN				MOTOR PROTEIN MOTOR PROTEIN, ATPASE, MICROTUBULE ASSOCIATED	MOTOR PROTEIN MOTOR PROTEIN,
Coumpound		PROFILIN; CHAIN: NULL;	PROFILIN; CHAIN: NULL;	ACTIN BINDING PROTEIN PROFILIN IPNE 3	ACTIN BINDING PROTEIN PROFILIN 1PNE 3		PROFILIN II; CHAIN: A, B, C, D;	:	PROFILIN II; CHAIN: A, B, C, D;	ACTIN BINDING PROTEIN PROFILIN 1PNE 3	ACTIN BINDING PROTEIN PROFILIN 1PNE 3	KINESIN; CHAIN: NULL;	KINESIN; CHAIN: NULL;
SEQFOL D score			167.69		167.40						133.14		
PMF score		1.00		00'1			1.00		1.00	1.00		1.00	1.00
Verify score		1.04		0.92			0.75		0.71	0.64		-0.22	-0.15
Psi Blast		1.7e-52	1.7e-52	1.7e-52	1.7e-52	•	1.7e-42		4.5e-52	1.5e-42	1.5e-42	36-68	6.8e-35
END AA		140	140	140	140		122		122	124	124	921	176
STAR T AA		2	2	2	2		2		7	2	2	2	2
CHAI N ID			. ——.				Ą	,	Ą				
PDB ID		<u>191</u>	[IJ]	1pne	1pne		ldIj		ldıj	Ipne	1pne	1bg2	1bg2
SEQ B B S		1530	1530	1530	1530		1531		1531	1531	1531	1534	1534

PDB annotation	ASSOCIATED	CONTRACTILE PROTEIN NCD, CLARET SEGREGATIONAL PROTEIN; NCD CRYSTAL	STRUCTURE, MICROTUBULE MOTORS, KINESIN 2 SUPERFAMILY, CONTRACTI F PROTEIN	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	CONTRACTILE PROTEIN KINESIN, MICROTUBULE-BASED MOTOR, NCD, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN	CONTRACTILE PROTEIN, NARS, KINESIN-RELATED PROTEIN	MOTOR 2 PROTEIN, ATPASE, P-	LOOP, MICROTUBULE BINDING	PROTEIN	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON	MOTOR PROTEIN MOTOR PROTEIN, CYTOSKELETON						AMINOTRANSFERASE	AMINOTRANSFERASE, PYRIDOXAL FUZYME	
Coumpound		MICROTUBULE MOTOR PROTEIN NCD; CHAIN: A, B, C, D;		KINESIN; CHAIN: A, B;	KINESIN; CHAIN: A, B;	KINESIN MOTOR NCD; CHAIN: A;	KINESIN-LIKE PROTEIN KAR3;	CFAIN: NULL;		-		KINESIN HEAVY CHAIN; CHAIN: A, B, C, D;	KINESIN HEAVY CHAIN; CHAIN: A. B. C. D:	TRANSFERASE(AMINOTRANSF	ERASE) ASPARTATE AMINOTRANSFERASE	(E.C.2.6.1.1) COMPLEXED WITH	1ARS 3 PYRIDOXAL-5'-	PHOSPHATE 1ARS 4	ASPARTATE	AMINOTRANSFERASE; CHAIN:	ָרָי (מְיִּרֶּיִי יִּיִּיִּיִּיִי יִּיִּיִּיִּיִּיִּיִּיִּיִי יִּיִּיִּיִּיִּיִּיִּיִּיִּיִּיִּיִּיִּי
SEQFOL D score																			!		
PMF score		0.10		0.83	1.00	0.54	0.66					0.98	0.71	0.07					0.75		_
Verify score		-0.36		0.03	-0.17	-0.24	-0.30					-0.25	-0.44	-0.22					0.17		
Psi Blast		le-17		3e-40	6.8e-19	6.8e-18	1.7e-21					1.5e-38	1.7e-20	6.8e-13					5.1e-81		
END AA		170		186	199	170	172					186	230	369					369	-	
STAR T AA		4		101	101	4	-					105	501	71					_		
CHAI		∀		æ	В	¥						В	В						Ą		
PDB CI		lcz7		2kin	2kin	2ncd	3kar					3kin	3kin	lars					1bjw		
SEQ NO:		1534		1534	1534	1534	1534					1534	1534	1536					1536		

PDB annotation	TRANSFERASE AONS, 8-AMINO-7- KETOPELARGONATE SYNTHASE; PLP-DEPENDENT ACYL-COA SYNTHASE, BIOTIN BIOSYNTHESIS, 8-2 AMINO-7-OXONANOATE SYNTHASE, 8-AMINO-7- KETOPELARGONATE 3 SYNTHASE, TRANSFERASE	TRANSFERASE AONS, 8-AMINO-7- KETOPELARGONATE SYNTHASE; PLP-DEPENDENT ACYL-COA SYNTHASE, BIOTIN BIOSYNTHESIS, 8-2 AMINO-7-OXONANOATE SYNTHASE, 8-AMINO-7- KETOPELARGONATE 3 SYNTHASE, TRANSFERASE	TRANSFERASE TAT; TYROSINE CATABOLISM, TRANSFERASE, AMINOTRANSFERASE, 2 PYRIDOXAL-5'-PHOSPHATE, PLP	TRANSFERASE TRANSFERASE, AMINOTRANSFERASE, PYRIDOXAL PHOSPHATE	TRANSFERASE AMINOTRANSFERASE FOLD, LARGE PLP-BINDING DOMAIN, SMALL C- 2 TERMINAL DOMAIN, OPEN ALPHA-BETA STRUCTURE.	LYASE DGD; ENZYME COMPLEXES, CATALYTIC MECHANISM, DECARBOXYLATION 2 INHIBITOR, LYASE	LYASE DGD; ENZYME COMPLEXES, CATALYTIC MECHANISM,
Coumpound	8-AMINO-7-OXONANOATE SYNTHASE; CHAIN: A;	8-AMINO-7-OXONANOATE SYNTHASE; CHAIN: A;	TYROSINE AMINOTRANSFERASE; CHAIN: A, B;	CYSTALYSIN; CHAIN: A, B, C, D, E, F, G, H;	MALY PROTEIN; CHAIN: A, B;	2,2-DIALKYLGL YCINE DECARBOXYLASE (PYRUVATE); CHAIN: A;	2,2-DIALKYLGLYCINE DECARBOXYLASE
SEQFOL D score	69.72					169.86	
PMF score		0.12	0.16	0.25	-0.05		1.00
Verify		0.32	0.09	-0.03	0.10		0.72
Psi Blast	1.7e-41	1.7e-41	6.8e-54	1.7e-18	3.4e-21	3.4e-63	3.4e-63
END	375	365	373	373	373	372	372
STAR T AA	-	47		89	92	1	46
CHAI N ID	∢	¥	¥	A	Ą	¥	A
PDB ID	1bs0	1bs0	1bw0	1c7n	1d2f	147ս	1d7u
SEQ NO.	1536	1536	1536	1536	1536	1536	1536

PDB annotation	DECARBOXYLATION 2 INHIBITOR, LYASE		AMINOTRANSFERASE, 4- AMINOBUTYRIC ACID, 2 ANTIEPILEPTIC DRUG TARGET		AMINOTRANSFERASE, 4- AMINOBUTYRIC ACID, 2	ANTIEPILEPTIC DRUG TARGET	_	3; AMINOTRANSFERASE, PYRIDOXAL-5'-PHOSPHATE BIOTIN	2 BIOSYNTHESIS	E CHLOROPHYLL BIOSYNTHESIS IS GLUTAMATE SEMIALDEHYDE		BIOSYNTHESIS, PYRIDOXAL-5'.	PHOSPHATE, 2 PYRIDOXAMINE-5'-	PHOSPHATE, ASYMMETRIC DIMER	_		AMINOMUTASE; CHLOROPHYLL	BIOSYNTHESIS, PYRIDOXAL-5-	PHOSPHATE, 2 PYRIDOXAMINE-5'-	PHOSPHATE, ASYMMETRIC DIMER	÷	_	FLUOROMETHYLORNITHINE, PLP-	DEPENDENT 2 ENZYME,	PYRIDOXAL PHOSPHATE	AMMOTRANSEERASE
Coumpound	(PYRUVATE); CHAIN: A;	4-AMINOBUTYRATE AMINOTRANSFERASE; CHAIN:	A, B, C, D;	4-AMINOBUTYRATE AMINOTRANSFERASE; CHAIN:	A, B, C, D;		7,8-DIAMINOPELARGONIC	ACID SYNTHASE; CHAIN: A, B;		GLUTAMATE SEMIALDEITYDE AMINOTRANSFERASE: CHAIN:	A, B;	,			GLUTAMATE SEMIALDEHYDE	AMINOTRANSFERASE; CHAIN:	A, B;				ORNITHINE	AMINOTRANSFERASE; CHAIN:	A, B, C;			ORNITHINE
SEQFOL D score							:			90.43											130.71					
PMF		1.00		00'1			1.00								1.00											1.00
Verify		0.71		0.47			0.54								0.25											0.57
Psi Bļast		1.5e-70		1.7e-53			6.8e-64			1.2e-72					1.2e-72						1.7e-62					1.7e-62
END		370		373			371			372					372						372					369
STAR T AA		49		53			40			1					5						2					40
CHAI N ID		¥		∢			A			Ą					¥						¥					· ¥
PDB ID		1gt xtg		1gtx			1qj5	-		2gsa					2gsa						2oat					2oat
SEQ ID		1536		1536			1536			1536					1536						1536					1536

PDB annotation	AMINOTRANSFERASE, 5- FLUOROMETHYLORNITHINE, PLP- DEPENDENT 2 ENZYME, PYRIDOXAL PHOSPHATE	HYDROLASE SERCAI; ION PUMP, CALCIUM, MEMBRANE PROTEIN, P- TYPE ATPASE, ACTIVE 2 TRANSPORT	HYDROLASE TETRATRICOPEPTIDE, TRP, HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	SIGNALLING COMPLEX RACI; P67PHOX; SIGNALLING COMPLEX, GTPASE, NADPH OXIDASE, PROTEIN-PROTEIN 2 COMPLEX, TPR MOTTF	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN,
Coumpound	AMINOTRANSFERASE; CHAIN: A, B, C;	CALCIUM-TRANSPORTING ATPASE SARCOPLASMIC CHAIN: A;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERNE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 1; CHAIN: A; NEUTROPHIL CYTOSOL FACTOR 2 (NCF-2) CHAIN: B;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR2A-DOMAIN OF HOP;
SEQFOL D score								
PMF score		0.04	0.77	0.15	0.29	0.54	0.19	0.52
Verify score		-0.16	0.06	-0.35	-0.12	0.21	0.00	0.26
Psi Blast		0	3.4e-23	16-10	1.5e-13	16-12	10-18	16-18
END		916	247	253	230	961	231	167
STAR T AA		91	135	179	102	101	139	29
CHAI N ID		A			В	4	V	Ą
PDB ID		leuí	1a17	1a17	1e96	1elr	lelr	lelr
SEQ NO:		1539	1541	1541	1541	1541	1541	1541

Γ	1	ı	ή		1	T		1	т
РDВ аппотатоп	PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELLCAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELLCAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP, PEROXIN-5, PTS1 PROTEIN- PEPTIDE COMPLEX, TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	PROTEIN TRANSPORT HELIX- TURN-HELIX TPR-LIKE REPEAT, PROTEIN TRANSPORT	TRANSFERASE METHYLTRANSFERASE	STRUCTURAL GENOMICS HYPOTHETICAL PROTEIN,
Coumpound	CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	PEROXISOMAL TARGETING SIGNAL I RECEPTOR; CHAIN: A, B; PTSI-CONTAINING PEPTIDE; CHAIN: C, D;	VESICULAR TRANSPORT PROTEIN SEC17; CHAIN: A;	GLYCINE N. METHYLTRANSFERASE; CHAIN: A, B, C, D;	MJ0882; CHAIN: A;
SEQFOL D score							63.04		
PMF		0.53	0.01	0.46	0.37	0.18		-0.09	0.37
Verify score		-0.04	0.30	0.73	0.35	-0.06		0.55	0.57
Psi Blast		1.7e-20	3.4e-15	le-14	3.4e-13	8.5e-35	3.4e-07	3.4e-16	3.4e-09
END		250	133	175	202	252	254	190	187
STAR T AA		133	28	<u>z</u>	86	9	5	65	72
CHAI N ID		¥	V	Ą	¥	¥	¥	А	¥
PDB ID		lelw	leiw	lelw	le!w	1fch	lqqe	1d2h	1dus
SEQ NO.		1541	1541	1541	1541	1541	1541	1542	1542

PDB annotation	METHANOCOCCUS JANNASCHII	TRANSFERASE RRNA METHYLTRANSFERASE ERMC', COFACTOR ANALOGS	METHYLTRANSFERASE GNMT, S- ADENOSYL-L-METHIONINE\: GLYCINE METHYLTRANSFERASE	METHYLTRANSFERASE TRANSFERASE, METHYLTRANSFERASE, RESTRICTION SYSTEM	METHYLTRANSFERASE TRANSFERASE, METHYLTRANSFERASE, RESTRICTION SYSTEM	HYDROLASE TETRATRICOPEPTIDE, TRP, HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY	SIRUC LUKE SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP, PEROXIN-5, PTS1 PROTEIN- PEPTIDE COMPLEX, TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	
Coumpound		ERMC' METHYLTRANSFERASE; CHAIN: A;	GLYCINE N- METHYLTRANSFERASE; CHAIN: A, B;	ADENINE-N6-DNA- METHYLTRANSFERASE TAQI; CHAIN: A, B;	ADENINE-NG-DNA- METHYLTRANSFERASE TAQI; CHAIN: A, B;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	PEROXISOMAL TARGETING SIGNAL I RECEPTOR; CHAIN: A, B; PTSI-CONTAINING PEPTIDE; CHAIN: C, D;	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 1AHD 3 REPLACED BY SER (C39S) COMPLEX WITH DNA (NMR,
SEQFOL D score								58.51
PMF score		0.00	-0.13	-0.14	0.16	0.28	0.25	
Verify score		0.27	-0.00	0.14	-0.29	-0.10	0.17	·
Psi Blast		3e-06	3.4e-17	5.1e-11	7.5e-06	1.5e-06	4.5e-06	5.1e-32
END AA		200	190	192	337	58	83	291
STAR T AA		72	21	%	99	-	7	228
CHAI N ID		Ą	4	¥	∢		∢	<u>م</u>
PDB CI		lqam	lxva	2adm	2adm	1a17	1fch	lahd
SEQ NO ID		1542	1542	1542	1542	1544	1544	1545

PDB annotation			COMPLEX (DNA-BINDING PROTEIN/DNA) GHF-1; COMPLEX (DNA-BINDING PROTEIN/DNA), PITUITARY, CPHD, 2 POU DOMAIN, TRANSCRIPTION FACTOR	PROTEINDNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA	PROTEIN/DNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA	PROTEIN/DNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA	TRANSCRIPTION/DNA ULTRABITHORAX; PBX PROTEIN; DNA BINDING, HOMEODOMAIN, HOMEOTIC PROTEINS, DEVELOPMENT, 2 SPECIFICITY	TRANSCRIPTIONDNA ULTRABITHORAX; PBX PROTEIN; DNA BINDING, HOMEODOMAIN, HOMEOTIC PROTEINS,
Coumpound	1AHD 4 16 STRUCTURES) 1AHD 5	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 1AHD 3 REPLACED BY SER (C39S) COMPLEX WITH DNA (NMR, 1AHD 4 16 STRUCTURES) 1AHD 5	PIT-1; CHAIN: A, B; DNA; CHAIN: C, D;	HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	ULTRABITHORAX HOMEOTIC PROTEIN IV; CHAIN: A; HOMEOBOX PROTEIN EXTRADENTICLE; CHAIN: B; DNA (5'- CHAIN: C; DNA (5'- CHAIN: D;	ULTRABITHORAX HOMEOTIC PROTEIN IV; CHAIN: A; HOMEOBOX PROTEIN EXTRADENTICLE; CHAIN: B;
SEQFOL D score				78.21			55.32	
PMF score		1.00	0.59		1.00	1.00		1.00
Verify score		0.01	-0.40		0.40	0.40		0.49
Psi Blast		5.1e-32	4.5e-22	3e-28	3e-28	5.1e-26	5.1e-27	5.1e-27
END AA		294	286	290	290	290	287	287
STAR T AA		229	212	224	233	233	522	233
CHAI N ID		<u>0.</u>	¥	<	⋖	¥	¥	¥
PDB UD		1ahd	lau7	1672	1672	1672	1881	158i
SEQ NO.		1545	1545	1545	1545	1545	1545	1545

PDB annotation	DEVELOPMENT, 2 SPECIFICITY					COMPLEX (DNA-BINDING PROTEIN/DNA) HD; HOMEODOMAIN, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) HD; HOMEODOMAIN, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (ZINC FINGER/DNA)
Coumpound	DNA (5'- CHAIN: C; DNA (5'- CHAIN: D;	DNA-BINDING FUSHI TARAZU PROTEIN (HOMEODOMAIN) (NMR, 20 STRUCTURES) IFTZ 3	DNA-BINDING FUSHI TARAZU PROTEIN (HOMEODOMAIN) (NMR, 20 STRUCTURES) IFTZ 3	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 ISAN 3 REPLACED BY SER AND RESIDUES 1-6 DELETED (C39S,DEL 1-6) ISAN 4 (NMR, 20 STRUCTURES) ISAN 5	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 ISAN 3 REPLACED BY SER AND RESIDUES I-6 DELETED (C39S,DEL I-6) ISAN 4 (NMR, 20 STRUCTURES) ISAN 5	ANTENNAPEDIA PROTEIN; CHAIN: A, B; DNA; CHAIN: C, D, E, F;	ANTENNAPEDIA PROTEIN; CHAIN: A, B; DNA; CHAIN: C, D, E, F;	QGSR ZINC FINGER PEPTIDE;
SEQFOL D score		59.53		57.26			61.44	
PMF score			0.92		1.00	1.00		00.1
Verify			-0.12		0.30	0.42		0.19
Psi Blast		8.5e-28	8.5e-28	1.4e-29	1.46-29	1.7e-29	1.7e-29	1.4e-27
END		296	294	291	294	288	288	92
STAR T AA		727	229	234	235	233	233	12
CHAI N ID						₹	¥	4
PDB CD		1ftz	7 1 1	Isan	l san	9ant	9ant	laih
S e S		1545	1545	1545	1545	1545	1545	1546

ound PDB annotation		COMPLEX (ZINC FINGER/DNA), IDE BINDING ZINC FINGER, DNA-BINDING PROTEIN		IN COMPLEX (ZINC FINGER/DNA), IDE BINDING ZINC FINGER, DNA-BINDING			Olddidd	IDE BINDING ZINC FINGER, DNA-BINDING	_	_	IDE BINDING ZINC FINGER, DNA-BINDING	+		SA COMPLEA (ZINC FINGERUNA),		f					_	DE BINDING					CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	DI TE. CONTROL TO CONT
SEQFOL Coumpound	D score	CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX	OLIGONOCLEO I IDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING	OGSP ZING ENGED DEPTIDE:	CITA DI A DI DI I	CHAIN: A; DUPLEA	SITE: CHAIN: B. C.	OGSK ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;		CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			1 4 4 1 14 14 14 14 14 14 14 14 14 14 14
<u> </u>												+								80.58									L
PMF	score		1.00	-		0.88			1.00			000	9			1:00								0.23		•			-
Verify	score		0.26			0.16			0.48			0.21	7.			0.22								0.01					010
Psi Blast			8.5e-27			3e-28			1.5e-37			5 10 22	2.15-22			3.4e-30				3,4e-30				1.5e-14					10.16
END	AA		249			250			277			77	5			361				391				185					00
STAR	TAA		161			162			199			-	•			281				309				101					11
CHAI	N E		V			4			4			<	¢			A				4				၁					ر
PDB	<u>e</u>		lalh			laih			1a1h			1011	14111			1a1h				lalh				Imey					1mev
SEQ	e ŝ		1546			1546			1546			1546	?			1546				1546				1546					1546

	TAA	¥	I SI Diast	verny	Score	SEQFOL D score	Coumpound	PDB agnotation
							PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
U	125	249	6e-25	-0.12	0.49		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA
		·					PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX
								(ZINC FINGER/DNA)
ပ	130	221	1.5e-39	-0.10	0.48		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA
					•		PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
								CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
၁	160	249	5.1e-47	0.09	1.00		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
							CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
							PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
								CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
ပ	881	277	1.7e-47	0.57	1.00		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
							CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
							PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
								CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
ပ	_	2	5.1e-34	0.26	0.95		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
							CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
			•				PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
			•					CRYSTAL STRUCTURE, COMPLEX
								(ZINC FINGER/DNA)
ပ	224	305	10-49	0.81	1.00		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
							CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
							PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
								CRYSTAL STRUCTURE, COMPLEX
	22.4	305	0, 2,			105.00	PAIA CITABLE DE P.	(ZINC FINGER/UNA)

SEQ ID NO:	aga m	CHAI N ID	STAR T AA	END	Psi Blast	Verify score	PMF	SEQFOL D score	Coumpound	PDB annotation
									CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
1546	Ітеу	ပ	252	333	1.2e-49	0.59	1.00		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
1546	lmey	ပ	280	361	3.4e-49	0.38	1.00		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
1546	lmey	o	308	389	1.26-49	0.37	1.00		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
1546	Ітеу	ပ	336	411	3.4e-44	0.26	1.00		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
1546	11f6	∢	132	291	1.46-31	0.03	0.46		TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN
1546	ltf6	V	196	359	1.5e-37			117.50	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION

PDB annotation	REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION
Coumpound		TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 58 RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	YY1; CHAIN: C; ADENO-ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO-
SEQFOL D score						
PMF score		1.00	1.00	0.75	0.96	0.99
Verify score		0.41	0.32	0.07	0.20	0.28
Psi Blast		1.5e-37	1.5e-37	1.7e-26	6.8e-31	3e-40
END	•	342	403	410	249	277
STAR T AA		199		309	133	165
CHAI N ID		∢	∢	∢	ပ	၁
909 U		1116	1tf6	1tf6	lubd	lubd
SEQ No.		1546	1546	1546	1546	1546

PDB annotation	REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION,
	TRAN INITA FINGE TRECO (TRAN	REGU TRAN TRAN INITIA FINGE RECO (TRAN REGU	REGU TRAN TRAN INITIA FINGE (TRAN (TRAN REGU	REGU TRAN INITIA FINGE RECO (TRAN REGU	COMP REGU TRAN
Coumpound	ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA;
SEQFOL D score					
PMF score		1.00	0.81	0.16	1.00
Verify score		0.47	0.24	-0.28	-0.01
Psi Blast		5.1e-33	3e-25	1.7e-23	3.4e-29
END		277	119	150	
STAR T AA		168	16	61	1
CEAI N ID		U	U	C	၁
PDB ID		Iubd	lubd	lubd	lubd
SEQ El Si		1546	1546	1546	1546

PDB annotation	INITIATOR ELEMENT, YYI, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN
Coumpound	CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;
SEQFOL D score			97.53		
PMF score		1.00		1.00	1.00
Verify		0.25		0.44	0.42
Psi Blast		7.5e-48	1.2e-50	1.2e-50	4.5e-47
END		333	334	362	389
STAR T AA		201	226	250	279
CHAI N ID		ပ	U	U	ပ
PDB ID		lubd	pqnI	lubd	lubd
SEQ ID NO:		1546	1546	1546	1546

PDB annotation	RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)		COMPLEX (DNA-BINDING
	RECOGNITION, 3 (TRANSCRIPTION REGULATION/DN	COMPLEX (TRAN REGULATION/DN TRANSCRIPTION INITIATOR ELEMI FINGER PROTEIN RECOGNITION, 3 (TRANSCRIPTION REGULATION/DN	COMPLEX (TRAN REGULATION/DN TRANSCRIPTION INITIATOR ELEM FINGER PROTEIN, RECOGNITION, 3 (TRANSCRIPTION REGULATION/DN	COMPLEX (TRAN REGULATIONDN TRANSCRIPTION INITIATOR ELEM FINGER PROTEIN RECOGNITION, 3 (TRANSCRIPTION REGULATION/DN		COMPLEX
Coumpound		YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	COMPLEX(TRANSCRIPTION REGULATION/DNA) TRAMTRACK PROTEIN (TWO ZINC-FINGER PEPTIDE) COMPLEXED WITH 2DRP 3 DNA 2DRP 4	ZINC FINGER PROTEIN GLII;
SEQFOL D score						
PMF score		1.00	1.00	0.93	0.74	99.0
Verify score		0.35	0.11	0.16	0.24	60.0
Psi Blast		1.7e-33	7.5e-46	8.5e-32	16-10	6e-32
END		389	417	410	122	150
STAR T AA		288	306	316		12
CHAI N ID		ပ	v	ပ	⋖	4
PDB ID		1ubd	1ubd	1ubd	2drp	2gli
SEQ NO.		1546	1546	1546	1546	1546

PDB annotation		PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI; GLI. ZINC FINGER. COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	COMPLEX ONA BRIDING	PROTEIN/DNA) FIVE-FINGER GLI:	GI ZINC FINGER COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	I CILI. ZIINC FIINGER. COMPLEE (LOIN)
Coumpound	•	CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;		ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;		ZINC FINGER PROTEIN GLI1;	CHAIN: A; DNA; CHAIN: C, D;		ZINC EINGED DOCTEIN GI II.	CHAIN: A. DNA. CHAIN: C D.			ZINC FINGER PROTEIN GLII:	CHAIN: A; DNA; CHAIN: C, D;			ZINC FINGER PROTEIN GLI1;	CHAIN: A; DNA; CHAIN: C, D;		!	ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;			ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;	
SEQFOL	D score								106.53																					
PMF	score		0.34			0.94						1 00	3			0.95				8.				1.00				0.99		_
Verify	score		-0.08			0.34						0.35)			0.40				0.13				0.45				0.14		
Psi Blast			3.4e-26			3.46-32			1.2e-63			1 20.63	2			3.4e-34				9e-45				6.8e-31				1.5e-42		
END	_		248			304	•		363			301	.			388				418				410				279		
STAR	I AA		137			160	•		224			224	1			260				280				288				8		
CHAI	9		A		,	Ą			Ą			4	:			Ą				٧				∀				¥		
PDB	3		2gli			2gli			2gli			Joli .	į			2gli)			2gli				2gli				2gli		
SEQ	a ë		1546			1546			1546			1546	?			1546				1546				1546				1546		

	П																											7
PDB annotation	BINDING PROTEIN/DNA)	RIBOSOME 30S RIBOSOMAL SUBUNIT, RIBOSOME, ANTIBIOTIC, STREPTOMYCIN, 2	SPECTINOMYCIN, PAROMOMYCIN																									
Coumpound		16S RIBOSOMAL RNA; CHAIN: A; FRAGMENT OF MESSENGER RNA; CHAIN: X; 30S	RIBOSOMAL PROTEIN S2; CHAIN: B; 30S RIBOSOMAL	PROTEIN S3; CHAIN: C; 30S	CHAIN: D; 30S RIBOSOMAL	PROTEIN S5; CHAIN: E; 30S	RIBOSOMAL PROTEIN S6;	CHAIN: F; 30S RIBOSOMAL	PROTEIN S7; CHAIN: G; 30S	CHAIN: H: 30S RIBOSOMAL	PROTEIN S9: CHAIN: 1: 30S	RIBOSOMAL PROTEIN S10;	CHAIN: J; 30S RIBOSOMAL	PROTEIN S11; CHAIN: K; 30S	RIBOSOMAL PROTEIN S12;	CHAIN: L; 30S RIBOSOMAL	PROTEIN S13; CHAIN: M; 30S	KIBOSOMAL PROTEIN S14;	PROTEIN S15: CHAIN: O: 30s	RIBOSOMAL PROTEIN S16;	CHAIN: P; 30S RIBOSOMAL	PROTEIN S17; CHAIN: Q; 30S	RIBOSOMAL PROTEIN S18;	CHAIN: R; 30S RIBOSOMAL	PROTEIN S19; CHAIN: S; 30S	RIBOSOMAL PROTEIN S20;	CHAIN: T; 30S RIBOSOMAL	PROTEIN THX; CHAIN: V
SEQFOL D score																												
PMF score		1.00																										
Verify score		0.78																										
Psi Blast		le-53																										
END AA		366																										
STAR T AA		217																										
CHAI N ID		ш																										
PDB ID		1fjg																										
SEQ ID NO:		1547																								-		
									60 1																			

PDB annotation			TRANSCRIPTION INHIBITOR BETA- PROPELLER	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	ZINC FINGER TRANSCRIPTION	FACTOR SP1; ZINC FINGER, TRANSCRIPTION ACTIVATION, SP1	ZINC FINGER TRANSCRIPTION	FACTOR SP1; ZINC FINGER, TRANSCRIPTION ACTIVATION, SP1	COMPLEX (TRANSCRIPTION REGIL ATTOMONA) TFIIIA: 5S
Coumpound	RIBOSOMAL PROTEIN RIBOSOMAL PROTEIN SS (PROKARYOTIC) 1PKP 3	RIBOSOMAL PROTEIN RIBOSOMAL PROTEIN SS (PROKARYOTIC) 1PKP 3	TRANSCRIPTIONAL REPRESSOR TUPI; CHAIN: A, B, C;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	 	CONSENSUS ZINC FINGER	<u>- , - </u>		DNA; CHAIN: A, B, D, E;			SPIF2; CHAIN: NULL;		SP1F2; CHAIN: NULL;		TRANSCRIPTION FACTOR IIIA; CHAIN: A: 55 RNA GENE:
SEQFOL D score	64.28															
PMF score		1.00	0.11	-0.20	0.09				0.18			-0.20		-0.13		0.07
Verify score		0.53	0.31	0.02	-0.41				-0.05			0.21		0.05		-0.63
Psi Blast	le-56	le-56	0.0045	5.1e-29	5.1e-33				1.7e-07			1.7e-10		8.5e-09		1.7e-15
END AA	357	357	219	251	169				104			203		108		130
STAR T AA	211	217	119	172	77				77			173		78		69
CHAI N ID			A	ບ_	ပ				ڻ ت	,						¥
PDB ID	1pkp	lpkp	1erj	Imey	Imey				Imey		••••	1sp2		1sp2		1 1 5
SEQ ID NO:	1547	1547	1549	1553	1553				1553			1553		1553		1553

PDB annotation	GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	ZINC FINGER DNA BINDING DOMAIN DNA BINDING MOTIF, ZINC FINGER DNA BINDING DOMAIN		COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	CYCLIN A/CDK2-ASSOCIATED LIGASE SKP2 F-BOX: SKP1; SKP1.
Coumpound	CHAIN: E, F;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	SWIS; CHAIN: NULL;	COMPLEX(TRANSCRIPTION REGULATION/DNA) TRAMTRACK PROTEIN (TWO ZINC-FINGER PEPTIDE) COMPLEXED WITH 2DRP 3 DNA 2DRP 4	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	CYCLIN A/CDK2-ASSOCIATED
SEQFOL D score						54.61	
PMF		0.24	0.00	0.36	0.03		0.41
Verify score		-0.83	-0.36	0.04	-0.30	į	-0.10
Psi Blast		1.4e-15	5.1e-06	1.7e-06	3.4e-41	3.4e-41	4.5e-07
END AA		130	104	130	201	229	47
STAR T AA		49	78	74	52	79	∞
CHAI N ID		ပ	-	∢	¥	¥	∀
PDB ID		1ubd	1zfd	2drp	2gli	2gli	1fs1
SEQ ID NO:		1553	1553	1553	1553	1553	1554

PDB annotation	SKP2, F-BOX, LRR, LEUCINE-RICH REPEAT, SCF, UBIQUITIN, 2 E3, UBIQUITIN PROTEIN LIGASE	CELL DIVISION RCYCLIN H (RECOMBINANT); CYCLIN, CELL CYCLE, CELL DIVISION, NUCLEAR PROTEIN	COMPLEX (PROTEIN KINASE/CYCLIN- DEPENDENT KINASE-2, CDK2, P33 PROTEIN KINASE; CCNA, CCN1; COMPLEX (PROTEIN KINASE/CYCLIN), CYCLIN, CDK, 2 PHOSPHORYLATION, SUBSTRATE COMPLEX	COMPLEX OF TWO ELONGATION FACTORS EF-TU; EF-TS; ELONGATION FACTOR, NUCLEOTIDE EXCHANGE, GTP-BINDING, 2 COMPLEX OF TWO ELONGATION FACTORS	COMPLEX OF TWO ELONGATION FACTORS EF-TU; EF-TS; ELONGATION FACTOR, NUCLEOTIDE EXCHANGE, GTP- BINDING, 2 COMPLEX OF TWO ELONGATION FACTORS	RNA BINDING PROTEIN G-PROTEIN, BETA-BARREL	RNA BINDING PROTEIN G-PROTEIN, BETA-BARREL	RNA BINDING PROTEIN EFTU;
Coumpound	P19; CHAIN: A, C; CYCLIN A/CDK2-ASSOCIATED P45; CHAIN: B, D;	CYCLIN H; CHAIN: NULL;	CELL DIVISION PROTEIN KINASE 2; CHAIN: A, C; G2/MITOTIC-SPECIFIC CYCLIN A; CHAIN: B, D; SUBSTRATE ` PEPTIDE; CHAIN: E, F;	ELONGATION FACTOR TU; CHAIN: A, B, E, F; ELONGATION FACTOR TS; CHAIN: C, D, G, H;	ELONGATION FACTOR TU; CHAIN: A, B, E, F; ELONGATION FACTOR TS; CHAIN: C, D, G, H;	ELONGATION FACTOR TU (EF- TU); CHAIN: A, B, C, D	ELONGATION FACTOR TU (EF- TU); CHAIN: A, B, C, D	ELONGATION FACTOR;
SEQFOL D score					134.70		131.00	
PMF		0.24	0.28	0.78		1.00		1.00
Verify score		-0.49	-0.36	0.02		0.41		0.47
Psi Blast		3e-11	1.5e-09	0	0	0	0	0
END		99	62	541	542	548	252	541
STAR T AA		p=4	ટ	122	165	122	124	121
CHAI N ID			В	A .	A	A	A	A
PDB ID		Ijkw	Iqmz	laip	laip	1d2e	1d2e	1efc
SEQ B Si		1558	1558	1559	1559	1559	1559	1559

PDB annotation	TRANSPORT AND PROTECTION PROTEIN, RNA BINDING PROTEIN	RNA BINDING PROTEIN EFTU; TRANSPORT AND PROTECTION PROTEIN, RNA BINDING PROTEIN	COMPLEX (TWO ELONGATION FACTORS) ELONGATION FACTOR FOR TRANSFER, HEAT UNSTABLE, ELONGATION FACTOR FOR TRANSFER, HEAT STABLE, ELONGATION FACTOR, COMPLEX (TWO ELONGATION FACTORS)	COMPLEX (TWO ELONGATION FACTORS) ELONGATION FACTOR FOR TRANSFER, HEAT UNSTABLE, ELONGATION FACTOR FOR TRANSFER, HEAT STABLE, ELONGATION FACTOR, COMPLEX (TWO ELONGATION FACTORS)	HYDROLASE ERA, GTPASE, RNA- BINDING, RAS-LIKE, HYDROLASE		TRANSLATION EF-TU; GTPASE, MOLECULAR SWITCH, TRNA, RIBOSOME, Q-BETA REPLICASE, 2 CHAPERONE, DISULFIDE ISOMERASE	TRANSLATION PROTEIN-PROTEIN COMPLEX
Coumpound	CHAIN: A, B;	ELONGATION FACTOR; CHAIN: A, B;	ELONGATION FACTOR TU; CHAIN: A, C; ELONGATION FACTOR TS; CHAIN: B, D;	ELONGATION FACTOR TU; CHAIN: A, C; ELONGATION FACTOR TS; CHAIN: B, D;	GTP-BINDING PROTEIN ERA; CHAIN: A, B;	TRANSPORT AND PROTECTION PROTEIN ELONGATION FACTOR TU (DOMAIN I) - *GUANOSINE DIPHOSPHATE 1ETU 4 COMPLEX 1ETU 5	ELONGATION FACTOR TU (EF- TU); CHAIN: A;	ELONGATION FACTOR EEFIA; CHAIN: A; ELONGATION
SEQFOL D score		129.64		115.68				
PMF score			0.86		0.13	0.45	1.00	1.00
Verify score			-0.05	,	0.05	0.18	0.29	0.31
Psi Blast		0	0	0	1.5e-13	8.5e-67	0	0
END		542	541	542	368	345	541	542
STAR T AA		137	122	172	126	118	117	120
CEAI N ID		¥	A	¥	¥		¥	Ą
PDB ID		lefc	lefu	lefu	lega	letu	Iexm	09J1
SEQ ID NO:		1559	1559	1559	1559	1559	1559	1559

PDB annotation		TRANSLATION EF-G; BENT CONFORMATION, VISIBLE DOMAIN III, MUTATION HIS573ALA	TRANSLATION TRANSLATIONAL GTPASE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	HYDROLASE TETRATRICOPEPTIDE, TRP; HYDROLASE, PHOSPHATASE, PROTEIN-PROTEIN INTERACTIONS, TPR, 2 SUPER-HELIX, X-RAY STRUCTURE	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELLCAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN.
Coumpound	FACTOR EEFIBA; CHAIN: B;	ELONGATION FACTOR G; CHAIN: A;	TRANSLATION INITIATION FACTOR IFZEIF5B; CHAIN: A;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	SERINE/THREONINE PROTEIN PHOSPHATASE 5; CHAIN: NULL;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPRZA-DOMAIN OF HOP; CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR2A-DOMAIN OF HOP:
SEQFOL D score										
PMF		0.00	0.28	0.07	0.83	0.70	0.03	0.10	0.41	0.05
Verify score		-0.15	0.03	0.08	-0.01	0.01	-0.46	-0.07	0.36	-0.02
Psi Blast		1.7e-05	8.5e-62	4.5e-09	1.2e-06	1.3e-08	0.0012	0.003	0.0003	0.0001
END		459	553	165	105	111	401	558	119	165
STAR T AA		319	123	19	2	19	316	462	54	63
CHAI N ID		A	A			¥	¥	Ý	V	Ą
PDB ID		1fnm	1g7s	la17	la17	lelr	lelr	lelr	lelr	lelr
SEQ ID NO:		1559	1559	1561	1561	1561	1561	1561	1561	1951

	AL	AAIN, AL. KOTEIN	AAL KOTEIN	AAL. KOTEIN	AAL. KOTEIN	AAIN, AL KOTEIN	1, PTS1- EIN- AT, TPR,	I, PTSI- IN- AT, TPR,
PDB annotation	LEX, HELIC.	OP, TPR-DO! LEX, HELIC , 2 HSP70, PF	OP, TPR-DON LEX, HELIC, , 2 HSP70, PF	OP, TPR-DON LEX, HELIC , 2 HSP70, PF	OP, TPR-DOM LEX, HELIC, , 2 HSP70, PF	OP, TPR-DOM LEX, HELIC, , 2 HSP70, PF	STEIN RECEPTOR PYSI PROTI LEX, PYTDE REPE	TEIN RECEPTOR PTSI PROTE LEX, PTIDE REPE
PDB	PEPTIDE-COMPLEX, HELICAL REPEAT, HSP90, 2 PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	CHAPERONE HOP, TPR-DOMAIN, PEPTIDE-COMPLEX, HELICAL REPEAT, HSC70, 2 HSP70, PROTEIN BINDING	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP, PEROXIN-5, PTS1 PROTEIN- PEPTIDE COMPLEX, TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP, PEROXIN-5, PTS1 PROTEIN- PEPTIDE COMPLEX, TETRATRICOPEPTIDE REPEAT, TPR,
	TDE	ż	P; CHAIN: CHAIN:	ÿ	ż	Z	ETING CHAIN: 4G	
Coumpound	CHAIN: A; HSP90-PEPTIDE MEEVD; CHAIN: B;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPR1-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPRI-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	TPRI-DOMAIN OF HOP; CHAIN: A, B; HSC70-PEPTIDE; CHAIN: C, D;	PEROXISOMAL TARGETING SIGNAL I RECEPTOR, CHAIN, A, B; PTSI-CONTAINING PEPTIDE; CHAIN: C, D;	PEROXISOMAL TARGETING SIGNAL I RECEPTOR; CHAIN: A, B; PTSI-CONTAINING PEPTIDE; CHAIN: C, D;
	CHAIN: A; HSP90-P MEEVD; CHAIN: B;	TPR1-DON A, B; HSC C, D;	TPR1-DON A, B; HSC C, D;	TPR1-DON A, B; HSC; C, D;	TPR1-DON A, B; HSC C, D;	TPR1-DON A, B; HSC; C, D;	PEROXISC SIGNAL 1 A, B; PTSI PEPTIDE;	PEROXISC SIGNAL 1 A, B; PTS1 PEPTIDE;
SEQFOL D score								
PMF score		96:0	0.71	0.95	0.19	0.12	0.65	0.31
Verify score		0.38	0.26	0.31	-0.68	0.41	0.25	0.34
Psi Blast		7.5e-08	5.1e-06	4.5e-07	0.00034	1.7e-05	1.3e-13	1.2e-10
END		119	123	97	472	537	252	119
STAR T AA		61	52	2	382	458	17	2
CHAI N ID		∢	٧	4	∢	4	∢	٧
PDB ID		lelw	lelw	lelw	Ielw	lelw	1fch	Ifch
SEQ NO.		1561	1561	1561	1561	1561	1561	1561

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PDB annotation	2 HELICAL REPEAT	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP. PEROXIN-5, PTS1 PROTEIN-	PEPTIDE COMPLEX, TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	SIGNALING PROTEIN PEROXISMORE RECEPTOR 1, PTS1- BP, PEROXIN-5, PTS1 PROTEIN-	PEPTIDE COMPLEX, TETRATRICOPEPTIDE REPEAT, TPR, 2 HELICAL REPEAT	LIPID TRANSPORT APO A-I; LIPOPROTEIN, LIPID TRANSPORT,	CHOLESTEROL METABOLISM, 2	ATHEROSCLENOSIS, FIDE, LCAT- ACTIVATION	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO	REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	TANDEM 3-HELIX COILED-COILS, STREET BAT BROTTEN	ENDOCYTOSIS/EXOCYTOSIS	NSECI; PROTEIN-PROTEIN	COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTA GMIN ASSOCIATED 35
Coumpound		PEROXISOMAL TARGETING SIGNAL I RECEPTOR; CHAIN: A. B. PTSI-CONTAINING	PEPTIDE; CHAIN: C, D;	PEROXISOMAL TARGETING SIGNAL 1 RECEPTOR; CHAIN: A, B; PTS1-CONTAINING	PEPTIDE; CHAIN: C, D;	APOLIPOPROTEIN A-I; CHAIN: A, B, C, D;			ALPHA SPECTRIN; CHAIN: A, B. C:			ALPHA SPECTRIN; CHAIN: A,	B, C;			SYNTAXIN BINDING PROTEIN	1; CHAIN: A; SYNTAXIN 1A;	CHAIN: B;	SYNTAXIN-1A; CHAIN: A, B, C;
SEQFOL D score						68.91			68.37										
PMF score		0.03		0.48								0.03				0.10			0.0
Verify score		0.05		0.10								0.04				-0.33		į	0.19
Psi Blast		3.4e-10	.,	1.4e-11		1.4e-07			1.5e-10			1.5e-10				1.5e-13			1.5e-07
END		563		286		242			233		·	269				254			128
STAR T AA		318		31		41			61			61				18			5
CHAI		¥		V		Ą			Ą			٨				В			∢
PDB ID		1fch		1fch		lavl			1cun			Icun				Idn1			lez3
SEQ ID NO:		1561		1561		1563			1563			1563				1563			1563

	L		1	[6		Ä	7
PDB annotation	KDA PROTEIN, P35A, THREE HELIX BUNDLE	PROTEIN TRANSPORT HELIX- TURN-HELIX TPR-LIKE REPEAT, PROTEIN TRANSPORT	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	TRANSCRIPTION REGULATION SIGMA70; RNA POLYMERASE SIGMA FACTOR, TRANSCRIPTION REGULATION	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	LIGASE CYCLIN A/CDK2.
Coumpound		VESICULAR TRANSPORT PROTEIN SEC17; CHAIN: A;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	RNA POLYMERASE PRIMARY SIGMA FACTOR; CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	SKP2; CHAIN: A, C, E, G, I, K, M,
SEQFOL D score		90.99	71.18						
PMF score				-0.06	0.12	0.00	0.62	-0.05	0.01
Verify				0.01	0.09	0.06	05:0	0.04	90.0
Psi Blast		1.2e-09	4.5e-17	4.5e-17	1.2e-06	16-13	1.5e-13	6.8e-09	3.4e-15
END AA		283	291	246	287	143	176	133	140
STAR T AA		2	22	'n		11	٣	43	3
CHAI N ID		4	∢	¥		¥	∢	В	⋖
PDB ID		1qqe	1quu	lquu	1sig	 1a4y	1a4 <i>y</i>	1691	lfqv
SEQ NO.		1563	1563	1563	1563	1565	1565	1565	1565

PDB annotation	A/CDK2-ASSOCIATED PROTEIN P19; SKP1, SKP2, F-BOX, LRR, LEUCINE- RICH REPEAT, SCF, UBIQUITIN, 2 E3, UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2- ASSOCIATED PROTEIN P45; CYCLIN A/CDK2-ASSOCIATED PROTEIN P19; SKP1, SKP2, F-BOX, LRR, LEUCINE- RICH REPEAT, SCF, UBIQUITIN, 2 E3, UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2- ASSOCIATED P45; CYCLIN A/CDK2- ASSOCIATED P19; SKP1, SKP2, F- BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS		
Coumpound	ž.	SKP2; CHAM: A, C, E, G, I, K, M, O; SKP1; CHAM: B, D, F, H, J, L, N, P;	SKP2; CHAIN: A, C; SKP1; CHAIN: B, D;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	LYASE(OXO-ACID) CARBONIC ANHYDRASE II (E.C.42.1.1) (50 MM TRIS, 2CBA 3 3 M AMMONIUM SULFATE, PH 7.8) 2CBA 4	LYASE(OXO-ACID) CARBONIC ANHYDRASE II (E.C.4.2.1.1) (50 MM TRIS, 2CBA 3 3 M AMMONIUM SULFATE, PH 7.8)
SEQFOL D score				,			403.66
PMF score		0.99	0.07	0.03	0.35	1.00	
Verify score		0.74	0.23	0.01	0.18	1.12	
Psi Blast		3e-17	3.4e-15	1.5e-12	4.5e-10	0	0
END AA		174	140	143	176	242	242
STAR T AA		ო	င	=	2	8	ന
CHAI N ID		∢	∢				
PDB DD		Ifqv	16.2	2bnh	2bnh	2cba	2cba
88 8 8 8		1565	1565	1565	1565	1567	1567

PDB annotation			OXIDOREDUCTASE COX-2, CYCLOOXYGENASE,	PROSTAGLANDIN, ARACHIDONATE, 2 ENDOPEROXIDE	OXIDOREDUCTASE HEME-	PROTEIN, PEROXIDASE, OXIDOREDUCTASE, PEROXIDASE- 2 BROMIDE COMPLEX	OXIDOREDUCTASE HEME-	PROTEIN, PEROXIDASE, OXIDOREDUCTASE, PEROXIDASE-2	BROMIDE COMPLEX	OXIDOREDUCTASE ARACHIDONIC	ACID, MEMBRAINE FROTEIN, PEROXIDASE, DIOXYGENASE	OXIDOREDUCTASE ADR, NADPH:	ADRENODOXIN	FI AVOENZYME MAD ANALYSIS	ELECTRON TRANSFERASE	OXIDOREDUCTASE	FLAVOPROTEIN, OXIDASE	OXIDOREDUCTASE COMPLEX II;	COMPLEX II; COMPLEX II;	COMPLEX II; FUMARATE	CITCONATE DELIVINOGENACE 2	RESPIRATION, OXIDOREDUCTASE			
Coumpound	2CBA 4		PROSTAGLANDIN H2 SYNTHASE-2; CHAIN: A, B; 9-	MER; CHAIN: F;	MYELOPEROXIDASE; CHAIN:	A, B; MYELOPEROXIDASE; CHAIN: C, D;	MYELOPEROXIDASE; CHAIN:	A, B; MYELOPEROXIDASE; CHAIN: C, D;		PROSTAGLANDIN H2	o ini hase-i; chain: A;	ADRENODOXIN REDUCTASE;	CHAIN: A;			SARCOSINE OXIDASE; CHAIN:	A, B;	FUMARATE REDUCTASE	FLAVOPROTEIN SUBUNIT;	CHAIN: A, M; FUMAKATE	PROTEIN: CHAIN: B N:	FUMARATE REDUCTASE 15 KD	HYDROPHOBIC PROTEIN;	CHAIN: C, O; FUMARATE	REDUCTASE 13 KD
SEQFOL D score																									
PMF score			-0.11		0.19		1.00			1.00		0.00				0.81		0.03							
Verify score			90.0	•	-0.76		0.61			0.22	•	-0.65				0.31		-0.04					•		
Psi Blast			0		3.4e-41		0			. 0		0.0045				6.8e-37		8.5e-53							
END AA			089		241		714			089		82				430		437							
STAR T AA			167		139		252			191		15				62		19							
CHAI N ID		_]	₹		Ą		C			Ą		A				Ą		∢							
PDB ID			lcvu		1d2v	•	1d2v			1diy		1cjc	,			lel5		1fum							
SEQ ID NO:			1568		1568		1568			1568		1569				1569		1569							

PDB annotation			(4)	4 OXIDOREDUCTASE FUMARATE REDUCTASE, SUCCINATE DEHYDROGENASE, RESPIRATORY 2 CHAIN, CITRIC ACID CYCLE, FLA VOPROTEIN, IRON-SULPHUR 3 PROTEIN, DIHAEM CYTOCHROME B					
	NOTEIN:	,	SE IIDE E (E.C.1.8.1.4) LLPF 3 FAD) 1LPF 4	8.1.4) PF 4 F; R T;	PF 4	8.1.4) PF 4 F; T; RR 8.1.4)	8.1.4) PF 4 F; T; T;	2.1.4)	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	BIC PROTEIN;		ICTASE POAMIDE ENASE (E.C.1.8.1.4) ITH 1LPF 3 ENINE- IDE (FAD) 1LPF 4	8.1.4) PF 4 C:	8.1.4) PF 4 IR T;	8.1.4) PF 4 F; T; T;	8.1.4) PF 4 F; T; T;	1.1.4) S 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	11.4) 3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.
HYDROPHOBIC PROTEIN; CHAIN: D. P.		OXIDOREDUCTASE	DIH I DROLLFOAMIDE DEHYDROGENASE (E.C.1.8.1.4) COMPLEX WITH 1LPF 3 FLAVIN-ADENINE- DINUCLEOTIDE (FAD) 1LPF 4	DIH TURCLEVORMIDE DEHYDROGENASE (E.C.1.8. COMPLEX WITH 1LPF 3 FLAVIN-ADENINE- DINUCLEOTIDE (FAD) 1LPF FUMARATE REDUCTASE FLAVOPROTEIN SUBUNIT; CHAIN: A, D; FUMARATE REDUCTASE IRON-SULFUR REDUCTASE IRON-SULFUR PROTEIN; CHAIN: B, E; FUMARATE REDUCTASE CYTOCHROME B SUBUNIT; CHAIN: C, F;	DILLYDROLLFOAMIDE DEHYDROGENASE (E.C.1.8 COMPLEX WITH 1LPF 3 FLAVIN-ADENINE- DINUCLEOTIDE (FAD) 1LPI FUMARATE REDUCTASE FLAVOPROTEIN SUBUNIT; CHAIN: A, D; FUMARATE REDUCTASE IRON-SULFUI PROTEIN; CHAIN: B, E; FUMARATE REDUCTASE CYTOCHROME B SUBUNIT CHAIN: C, F; FLAVOCYTOCHROME C3 FUMARATE REDUCTASE; CHAIN: A, D; CHAIN: A, D;	DIH TDROLLFOAMIDE DEHYDROGENASE (E.C.1.8.1.4) COMPLEX WITH 1LPF 3 FLAVIN-ADENINE- FLAVIN-ADENINE- FUMARATE REDUCTASE FLAVOROTEIN SUBUNIT; CHAIN: A, D; FUMARATE REDUCTASE IRON-SULFUR REDUCTASE IRON-SULFUR REDUCTASE IRON-SULFUR REDUCTASE IRON-SULFUR PROTEIN; CHAIN: B, E; FUMARATE REDUCTASE CYTOCHROME B SUBUNIT; CHAIN: C, F; FLAVOCYTOCHROME C3 FUMARATE REDUCTASE; CHAIN: C, E; CHAIN: A, D; OXIDOREDUCTASE DIHYDROLIPOAMIDE DIHYDROLIPOAMIDE DEHYDROLIPOAMIDE DEHYDROLIPOAMIDE	DIH TURCULFUAMIDE DEHYDROGENASE (E.C.1.8 COMPLEX WITH 1LPF 3 FLAVIN-ADENINE- DINUCLEOTIDE (FAD) 1LP: FUMARATE REDUCTASE FLAVOPROTEIN SUBUNIT; CHAIN: A, D; FUMARATE REDUCTASE IRON-SULFUI PROTEIN; CHAIN: B, E; FUMARATE REDUCTASE CYTOCHROME B SUBUNIT CHAIN: C, F; FLAVOCYTOCHROME C3 FUMARATE REDUCTASE CYTOCHROME C3 FUMARATE REDUCTASE CYTOCHROME C3 FUMARATE REDUCTASE DEHYDROLIPOAMIDE DEHYDROLIPOAMIDE DEHYDROGENASE (E.C.1.8 3LAD 3 FIMBRIN; CHAIN: NULL;	DIH TUROLLFOAMIDE DEHYDROGENASE (E.C.1.8 COMPLEX WITH 1LPF 3 FLAVIN-ADENINE- DINUCLEOTIDE (FAD) 1LPI FUMARATE REDUCTASE FLAVOPROTEIN SUBUNIT, CHAIN: A, D; FUMARATE REDUCTASE REDUCTASE REDUCTASE REDUCTASE REDUCTASE REDUCTASE REDUCTASE CYTOCHROME B SUBUNIT CHAIN: C, F; FLAVOCYTOCHROME C3 FUMARATE REDUCTASE CYTOCHROME C3 FUMARATE REDUCTASE CYTOCHROME C3 FLAVOCYTOCHROME C3 FL	DIH TURCULL'OAMIDE DEHYDROGENASE (E.C.1.8 COMPLEX WITH 1LPF 3 FLAVIN-ADENINE- DINUCLEOTIDE (FAD) 1LPI FUMARATE REDUCTASE FLAVOPROTEIN SUBUNIT; CHAIN: A, D; FUMARATE REDUCTASE REDUCTASE REDUCTASE CYTOCHROME B SUBUNIT CHAIN: A, D; CHAIN: C, F; FLAVOCYTOCHROME C3 FUMARATE REDUCTASE CYTOCHROME B SUBUNIT CHAIN: C, F; FLAVOCYTOCHROME C3 FUMARATE REDUCTASE DIHYDROLIPOAMIDE DEHYDROGENASE (E.C.1.8 31.AD 3 T-FIMBRIN; CHAIN: NULL; T-FIMBRIN; CHAIN: NULL; T-FIMBRIN; CHAIN: NULL;
HYDROPHOE CHAIN: D, P;	OXTDOREDIT	DIHYDROLPOAMIDE DEHYDROGENASE (E	COMPLEX W FLAVIN-ADE DINUCLEOT	COMPLEX W FLAVIN-ADE DINUCLEOTI FUMARATE I FLAVOPROT CHAIN: A, D; REDUCTASE PROTEIN; CH FUMARATE I CYTOCHRON CHAIN: C, F;	COMPLEX W FLAVIN-ADE DINUCLEOTI FUMARATE FLAVOPROT CHAIN: A, D; REDUCTASE PROTEIN; CF FUMARATE CYTOCFRON CHAIN: C, F; FLAVOCYTC FUMARATE CHAIN: C, F; FLAVOCYTC FUMARATE	COMPLEX W FLAVIN-ADE DINUCLEOTI FUMARATE I FLAVOPROTI CHAIN: A, D; REDUCTASE PROTEIN; CH FUMARATE I CYTOCHROM CHAIN: C, F; FLAVOCYTO FUMARATE I CHAIN: C, F; FUMARATE I CHAIN: A, D; OXIDOREDUU DIHYDROLIP DEHYDROCIP DEHYDROCIP DEHYDROCIP DEHYDROCIP DEHYDROCIP DIHYDR	COMPLEX W FLAVIN-ADE DINUCLEOTI FUMARATE I FLAVOPROT CHAIN: A, D; REDUCTASE PROTEIN; CF FUMARATE I CYTOCHRON CHAIN: C, F; FLAVOCYTC FUMARATE I CYTOCHRON CHAIN: A, D; OXIDORED I DIHYDROLIF DEHYDROGI 3LAD 3 T-FIMBRIN; (COMPLEX W FLAVIN-ADE DINUCLEOTI FUMARATE I FLAVOPROT CHAIN: A, D; REDUCTASE PROTEIN; C, F; FUMARATE I CYTOCHRON CHAIN: C, F; FLAVOCYTO FUMARATE I CYTOCHRON CHAIN: A, D; OXIDOREDU DIHYDROLIF DEHYDROLIF DEHYDROLIF JLAD 3 T-FIMBRIN; (COMPLEX W FLAVIN-ADE DINUCLEOTI FUMARATE I FLAVOPROT CHAIN: A, D; REDUCTASE PROTEIN; CF; FUMARATE I CYTOCHRON CHAIN: C, F; FLAVOCYTO FUMARATE I CHAIN: A, D; OXIDOREDU DIHYDROLIF DEHYDROLIF DEHYDROLIF T-FIMBRIN; (T-FIMBRIN; (
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-0.23 (-0.34		0.04				
0.003			1.2e-43 -(8.5e-29 0				
82 0.0			437		434				
46			61		28		50		
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	r	īdir	Iqla		1408			 	
		1569	1569		1569	1569	1569	1569	1569

Coumpound PDB annotation	HOMOLOGY, ACTIN BINDING, STRUCTURAL PROTEIN	UTROPHIN; CHAIN: A, B; STRUCTURAL PROTEIN CALPONIN HOMOLOGY, ACTIN BINDING, STRUCTURAL PROTEIN	SPECTRIN BETA CHAIN; ACTIN-BINDING CALPONIN CHAIN: A; HOMOLOGY (CH) DOMAIN; FILAMENTOUS ACTIN-BINDING DOMAIN, CYTOSKELETON	SPECTRIN BETA CHAIN; ACTIN-BINDING CALPONIN CHAIN: A; HOMOLOGY (CH) DOMAIN; FILAMENTOUS ACTIN-BINDING DOMAIN, CYTOSKELETON	DYSTROPHIN; CHAIN: A, B, C, DYSTROPHIN, MUSCULAR DYSTROPHY, CALPONIN HOMOLOGY DOMAIN, 2 ACTIN- BINDING. UTROPHIN	UTROPHIN ACTIN BINDING STRUCTURAL PROTEIN CALPONIN REGION; CHAIN: A, B; HOMOLOGY DOMAIN, DOMAIN SWAPPING, ACTIN BINDING, 2 UTROPHIN, DYSTROPHIN, STRUCTURAL PROTEIN	UBIQUITIN-PROTEIN LIGASE E34; CHAIN: A, B, C; E3 UBIQUITIN CONJUGATING E2: CHAIN: D: UBIQUITIN CONJUGATING ENZYME	ATING D;	
		UTROPHIN	SPECTRIN CHAIN: A;	SPECTRIN CHAIN: A;	DYSTROP!	UTROPHIN REGION; C	UBIQUITIN-PROTEIN E3A; CHAIN: A, B, C; UBIQUITIN CONJUG ENZYME E2: CHAIN:		
e SEQFOL D score			88.88					131.07	
PMF		1.00		1.00	1.00	1.00	1.00		
Verify score		0.85		0.86	0.69	89.0	0.24		
Psi Blast		4.5e-35	8.5e-43	8.5e-43	16-35	5.1e-35	0	0	
END		232	235	235	233	233	562	564	
STAR T AA		127	126	127	126	126	202	212	
CHAI		∢	4	¥ .	4	⋖	A	4	
PDB UD		P441	16kr	1bkr	1dxx	lqag	lc4z	1042	
S e S		1571	1571	1571	1571	1571	1574	1574	

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PDB annotation	IMMUNOGLOBULIN FOLD, GLYCOPROTEIN	GROWTH FACTOR/GROWTH FACTOR RECEPTOR FGF2; FGFR2; IMMUNOGLOBULIN (IG)LIKE	DOMAINS BELONGING TO THE I- SET 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD		IMMUNOGLOBULIN-LIKE DOMAIN CONNECTIN 127, TITIN IG REPEAT · 27; MUSCLE PROTEIN, IMMUNOGLOBULIN-LIKE DOMAIN	IMMUNE SYSTEM CD32; RECEPTOR, FC, CD32, IMMUNE SYSTEM	TRANSFERASE DINUCLEOTIDE- BINDING MOTIF, PHOSPHORIBOSYL TRANSFERASE	TRANSFERASE DINUCLEOTIDE- BINDING MOTIF, PHOSPHORIBOSYL TRANSFERASE	HYDROLASE NEURAMINIDASE; HYDROLASE, GLYCOSIDASE	HYDROLASE NEURAMINIDASE; HYDROLASE, GLYCOSIDASE		HORMONE/GROWTH FACTOR HORMONE, RECEPTOR, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR HORMONE, RECEPTOR.
Coumpound	MOLECULE; CHAIN: A, B, C, D;	FIBROBLAST GROWTH FACTOR 2; CHAIN: A, B, C, D; FIBROBLAST GROWTH	FACTOR RECEPTOR 2; CHAIN: E, F, G, H;	T LYMPHOCYTE ADHESION GLYCOPROTEIN CD2 (RAT) IHNG 3	TITIN, 127; CHAIN: NULL;	FC GAMMA RIIB; CHAIN: A;	NICOTINATE MONONUCLEOTIDE:5,6- CHAIN: A:	NICOTINATE MONONUCLEOTIDE:5,6- CHAIN: A;	SIALIDASE; CHAIN: NULL;	SIALIDASE; CHAIN: NULL;		GROWTH HORMONE; CHAIN: A; PROLACTIN RECEPTOR; CHAIN: B:	GROWTH HORMONE; CHAIN: A: PROLACTIN RECEPTOR:
SEQFOL D score						2							53.09
PMF		0.13	•	0.04	0.00	0.01	-0.19	-0.20	-0.20	-0.19		-0.14	
Verify score		-0:30		0.13	-0.25	0.13	0.08	0.14	0.05	0.03		0.02	
Psi Blast		3e-05		1.5e-06	1.2e-05	7.5e-06	9e-10	7.5e-10	1.5e-10	6e-10	:	6e-11	6e-11
END AA		188		212	186	206	664	643	324	476		212	224
STAR T AA		113		511	113	105	484	491	881	790		102	31
CHAI N ID		ш		Ą		¥	¥	A			,	m	В
PDB ID		lev2		lhng	ltit	2fcb	s0p1	s0p1	leut	leut		lbp3	1bp3
SEQ NO:		1575		1575	1575	1575	1576	1576	1576	1576	1	1578	1578
					702								

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PDB annotation	HORMONE/GROWTH FACTOR	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	MEMBRANE PROTEIN BETA SANDWICH, CYTOKINE RECEPTOR, FN3 DOMAIN					HORMONE/GROWTH	FACTOR/HORMONE RECEPTOR 4-	HELICAL BOINDLE, ALL LIA	COMPLEX, FN 2 III DOMAINS, BETA	SHEET DOMAINS, CYTOKINE- RECEPTOR COMPLEX	HEPARIN AND INTEGRIN BINDING	HEPARIN AND INTEGRIN BINDING	CELL ADHESION PROTEIN CELL ADHESION PROTEIN, RGD.	EXTRACELLULAR MATRIX, 2	HEPARIN-BINDING,	GLYCOPROTEIN	CELL ADHESION PROTEIN CELL	ADRESION PROTEIN, RGD,	EAIRACELLOLAR MAIRA, 2 HEPARIN-BINDING,
Coumpound	CHAIN: B;	TITIN; CHAIN: NULL;	CYTOKINE RECEPTOR COMMON BETA CHAIN; CHAIN: A;	NEURAL ADHESION MOLECULE DROSOPHILA NEUROGLIAN	(CHYMOTRYPTIC FRAGMENT CONTAINING THE ICFB 3 TWO	FIBRONECTIN TYPE III	610 814)) 1CFB 5	PLACENTAL LACTOGEN;	CHAIN: A; PROLACTIN	NECEL FOR, CIRCIN: D, C,			FIBRONECTIN; CHAIN: A;	THE PROPERTY OF THE PROPERTY O	FIBRONECTIN; CHAIN: NOLL;				FIBRONECTIN; CHAIN: NULL;		
SEQFOL D score													56.61	20, 25	05.70						
PMF score		-0.08	-0.09	0.04				-0.14											0.34		
Verify score		-0.00	0.08	0.09				0.23											0.30		
Psi Blast		9e-10	3e-08	6e-10				3e-10					7.5e-06	00	1.20-09	٠			1.2e-09		
END AA		218	211	199				211					315	7.50	**				199		
STAR T AA		119	124	41				124					35	7.0	٠ •				37		
CHAI N ID			¥.				_ 	В					٧								
PDB UD		1bpv	1c8p	1cfb				146f					1fnh	3					1mfn		
SEQ No.		1578	1578	1578				1578					1578	1570	9/61				1578		

PDB annotation	GLYCOPROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN		PROTEIN BINDING ED-B, FIBRONECTIN, TYPEIII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING	TRANSFERASE ACETYLTRANSFERASE	TRANSFERASE AMINOGLYCOSIDE 3-N-ACETYLTRANSFERASE, EUBACTERIAL 2 AMINOGLYCOSIDE RESISTANCE, GCN5-RELATED N- ACETYLTRANSFERASE, 3 COA-	BINDING	TRANSFERASE N-ACETYL TRANSFERASE	TRANSFERASE PROTEIN-ACETYL COENZYME A COMPLEX, ACETYLTRANSFERASE	TRANSFERASE PROTEIN-ACETYL COENZYME A COMPLEX, ACETYLTRANSFERASE	
Coumpound		TENASCIN; CHAIN: A, B;	GLYCOPROTEIN FIBRONECTIN (TENTH TYPE III MODULE) (NMR, 36 STRUCTURES) ITTF 3	FIBRONECTIN; CHAIN: A;	ARYLALKYLAMINE N. ACETYLTRANSFERASE; CHAIN: A, B;	SERRATIA MARCESCENS AMINOGLYCOSIDE-3-N- CHAIN: A, B;		SEROTONIN N- ACETYLTRANSFERASE; CHAIN: A;	HPA2 HISTONE ACETYLTRANSFERASE; CHAIN: A, B, C, D;	HPA2 HISTONE ACETYLTRANSFERASE; CHAIN: A, B, C, D;	
SEQFOL D score		55.27									
PMF score			0.59	0.10	0.80	0.10		98.0	0.04	0.00	
Verify score			-0.03	0.11	0.42	-0.56		0.50	-0.15	0.08	
Psi Blast		4.5e-07	1.5e-09	9e-10	8.5e-14	1.7e-10		5.1e-13	5.1e-12	1.5e-14	
END		211	199	213	627	622		627	624	633	
STAR T AA		35	124	124	115	523	•	511	487	537	
CHAI N ID		V		A	B	¥		Ą	¥	¥	
PDB ID		1qr4	H	2fnb	9991	1504		lcjw	lqsm	1qsm	
SEQ NO:		1578	1578	1578	1579	1579		1579	1579	1579	

PDB annotation	TRANSFERASE ACETYLTRANSFERASE	TRANSFERASE AAC; AMINOGL YCOSIDE 6-N- ACETYLTRANSFERASE, ANTIBIOTIC 2 RESISTANCE, ACETYL COENZYME A	TRANSFERASE AMINOGLYCOSIDE 3-N-ACETYLTRANSFERASE, EUBACTERIAL 2 AMINOGLYCOSIDE RESISTANCE, GCN5-RELATED N- ACETYLTRANSFERASE, 3 COA- BINDING	TRANSFERASE N-ACETYL TRANSFERASE	SIGNALING PROTEIN P300/CBP ASSOCIATED FACTOR, COENZYME A, ACETYLTRANSFERASE, 2 COACTIVATOR, SIGNALING PROTEIN	TRANSFERASE PROTEIN-ACETYL COENZYME A COMPLEX, ACETYLTRANSFERASE	TRANSFERASE PROTEIN-ACETYL COENZYME A COMPLEX, ACETYLTRANSFERASE	TRANSFERASE HISTONE ACETYLTRANSFERASE, GCNS- RELATED N. ACETYLTRANSFERASE, 2 COA BINDING PROTEIN
Coumpound	ARYLALKYLAMINE N. ACETYLTRANSFERASE; CHAIN: A, B;	AMINOGLYCOSIDE N6: ACETYLTRANSFERASE TYPE 1; CHAIN: A;	SERRATIA MARCESCENS AMINOGLYCOSIDE-3-N- CHAIN: A, B;	SEROTONIN N- ACETYLTRANSFERASE; CHAIN: A;	P300/CBP ASSOCIATING FACTOR; CHAIN: B, A;	HPA2 HISTONE ACETYLTRANSFERASE; CHAIN: A, B, C, D;	HPA2 HISTONE ACETYLTRANSFERASE; CHAIN: A, B, C, D;	TGCNS HISTONE ACETYL TRANSFERASE; CHAIN: A;
SEQFOL D score								
PMF score	0.83	0.16	0.04	0.63	0.10	0.64	0.00	0.48
Verify	0.43	-0.18	-0.18	0.59	0.13	0.17	0.08	-0.21
Psi Blast	3.4e-19	1.76-11	5.1e-12	1.5e-18	1e-17	3.4e-11	1.5e-14	8.5e-16
END	732	749	727	732	751	729	738	749
STAR T AA	616	626	627	610	637	615	642	637
CHAI N ID	В	¥	4	A	В	¥ ·	Ą	A
EDB CI	1b6b		1504	1cjw	1cm0	lqsm	1qsm	lqst
SEQ NO.	1580	1580	1580	1580	1580	1580	1580	1580

PDB annotation	GENE REGULATION ADA4; TRANSCRIPTIONAL REGULATION, HISTONE ACETYLATION, N-2 ACETYLTRANSFERASE, GCN5 RELATED N-ACETYLTRANSFERASE FAMILY, 3 GENE REGULATION	OXIDOREDUCTASE TRYPANOTHIONE REDUCTASE, FAD DEPENDENT DISULPHIDE 2 OXIDOREDUCTASE	OXIDOREDUCTASE FLAVIN- DEPENDENT AMINE OXIDASE, OXIDOREDUCTASE		RNA BINDING PROTEIN SNRNP, SPLICING, SPLICEOSOME, SM, CORE SNRNP DOMAIN, 2 SYSTEMIC LUPUS ERYTHEMATOSUS, SLE	RNA BINDING PROTEIN SNRNP, SPLICING, SPLICEOSOME, SM, CORE SNRNP DOMAIN, 2 SYSTEMIC LUPUS ERYTHEMATOSUS, SLE	RNA BINDING PROTEIN D3 CORE SNRNP PROTEIN; B CORE SNRNP PROTEIN SNRNP, SPLICING, SM, CORE SNRNP DOMAIN, SYSTEMIC LUPUS 2 ERYTHEMATOSUS, SLE,
Соптроинд	TRANSCRIPTIONAL ACTIVATOR GCNS; CHAIN: A, B;	TRYPANOTHIONE REDUCTASE; CHAIN: A, B;	POLYAMINE OXIDASE; CHAIN: A, B, C;	OXIDOREDUCTASE DIHYDROLIPOAMIDE DEHYDROGENASE (E.C.1.8.1.4) 3LAD 3	SMALL NUCLEAR RIBONUCLEOPROTEIN SM DI; CHAIN: A; SMALL NUCLEAR RIBONUCLEOPROTEIN SM D2; CHAIN: B;	SMALL NUCLEAR RIBONUCLEOPROTEIN SM DI; CHAIN: A; SMALL NUCLEAR RIBONUCLEOPROTEIN SM D2; CHAIN: B;	SMALL NUCLEAR RIBONUCLEOPROTEIN SM D3; CHAIN: A, C, E, G, I, K; SMALL NUCLEAR RIBONUCLEOPROTEIN
SEQFOL D score							·
PMF	0.39	0.21	0.09	0.16	0.63	0.93	0.33
Verify	-0.37	0.06	0.02	0.01	0.48	0.50	0.50
Psi Blast	5.1e-14	1.2e-06	0.00014	1.5e-07	1.4e-13	3.4e-11	1.7e-11
END	749	116	104	123	126	122	126
STAR T AA	637	\$9	70	<i>L</i> 9	44	40	41
CHAI N ID	∢	V	A	Ą	Ą	В	¥
PDB 1D	lygh	laog	1637	3lad	1534	1b34	1436
SEQ ID NO:	1580	1582	1582	1582	1587	1587	1587

PDB annotation	RNA BINDING PROTEIN	RNA BINDING PROTEIN D3 CORE SNRNP PROTEIN; B CORE SNRNP PROTEIN SNRNP, SPLICING, SM, CORE SNRNP DOMAIN, SYSTEMIC LUPUS 2 ERYTHEMATOSUS, SLE, RNA BINDING PROTEIN	RNA BINDING PROTEIN D3 CORE SNRNP PROTEIN; B CORE SNRNP PROTEIN SNRNP, SPLICING, SM, CORE SNRNP DOMAIN, SYSTEMIC LUPUS 2 ERYTHEMATOSUS, SLE, RNA BINDING PROTEIN	OXIDOREDUCTASE PDZ DOMAIN, NNOS, NITRIC OXIDE SYNTHASE	OXIDOREDUCTASE PDZ DOMAIN, NNOS, NITRIC OXIDE SYNTHASE	PEPTIDE RECOGNITION PEPTIDE RECOGNITION, PROTEIN LOCALIZATION	CYTOKINE LCF; CYTOKINE, LYMPHOCYTE CHEMOATTRACTANT FACTOR, PDZ DOMAIN	KINASE HCASK, GLGF REPEAT, DHR; PDZ DOMAIN, NEUREXIN, SYNDECAN, RECEPTOR CLUSTERING, KINASE
Coumpound	ASSOCIATED CHAIN: B, D, F, H, J, L;	SMALL NUCLEAR RIBONUCLEOPROTEIN SM D3; CHAIN: A, C, E, G, I, K; SMALL NUCLEAR RIBONUCLEOPROTEIN ASSOCIATED CHAIN: B, D, F, H, J, L;	SMALL NUCLEAR RIBONUCLEOPROTEIN SM D3; CHAIN: A, C, E, G, I, K; SMALL NUCLEAR RIBONUCLEOPROTEIN ASSOCIATED CHAIN: B, D, F, H, J, L;	NEURONAL NITRIC OXIDE SYNTHASE; CHAIN: A; HEPTAPEPTIDE; CHAIN: B;	NEURONAL NITRIC OXIDE SYNTHASE; CHAIN: A; HEPTAPEPTIDE; CHAIN: B;	PSD-95; CHAIN: A; CRIPT; CHAIN: B;	INTERLEUKIN 16; CHAIN: NULL;	HCASK/LIN-2 PROTEIN; CHAIN: A, B;
SEQFOL D score		·				-		
PMF		66.0	0.69	96.0	0.82	1.00	0.76	0.93
Verify score		0.25	0.26	69.0	0.72	0.56	0.35	0.83
Psi Blast		5.1e-24	8.5e-25	3e-14	3.4e-13	1.5e-18	1.5e-16	7.5e-15
END		134	134	80	110	98	96	82
STAR T AA		43	39	12	3	\$	6	6
CHAI N ID		В	D	A	А	A		Ą
PDB ID		1436	1436	1589	1b8q	1be9	1116	1kwa
SEQ B B		1587	1587	1588	8851	1588	1588	1588

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PDB annotation	SIGNAL TRANSDUCTION HDLG, DHR3 DOMAIN; SIGNAL TRANSDUCTION, SH3 DOMAIN, REPEAT	OXIDOREDUCTASE BETA-FINGER	MEMBRANE PROTEIN/OXIDOREDUCTASE BETA- FINGER, HETERODIMER	PEPTIDE RECOGNITION PSD-95; PDZ DOMAIN, NEURONAL NITRIC OXIDE SYNTHASE, NMDA RECEPTOR 2 BINDING	HYDROLASE PDZ DOMAIN, HUMAN PHOSPHATASE, HPTPIE, PTP-BAS, SPECIFICITY 2 OF BINDING	PROTEIN BINDING GATE-16; UBIQUITIN FOLD	LIPID TRANSPORT APO A-I; LIPOPROTEIN, LIPID TRANSPORT, CHOLESTEROL METABOLISM, 2 ATHEROSCLEROSIS, HDL, LCAT- ACTIVATION	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN
Coumpound	HUMAN DISCS LARGE PROTEIN; CHAIN: NULL;	NEURONAL NITRIC OXIDE SYNTHASE (RESIDUES 1-130); CHAIN: A;	ALPHA-I SYNTROPHIN (RESIDUES 77-171); CHAIN: A; NEURONAL NITRIC OXIDE SYNTHASE (RESIDUES 1-130); CHAIN: B;	POSTSYNAPTIC DENSITY PROTEIN 95; CHAIN: A;	TYROSINE PHOSPHATASE (PTP-BAS, TYPE 1); CHAIN: A;	GOLGI-ASSOCIATED ATPASE ENHANCER OF 16 KD; CHAIN: A, B;	APOLIPOPROTEIN A-1; CHAIN: A, B, C, D;	ALPHA SPECTRIN; CHAIN: A, B, C;
SEQFOL D score					·		54.19	61.70
PMF score	1.00	0.95	1.00	66:0	1.00	0.89		
Verify score	0.78	0.89	0.66	0.79	16:0	0.36		
Psi Blast	16-17	1.2e-14	3.4e-19	1.4e-15	1.7e-16	8.5e-34	4.5e-06	1.5e-07
END AA	06	96	81	83	98	187	244	248
STAR T AA	က	12	ന	-	£.	16	53	28
CHAI N ID		A	¥	A	А	A	· •	A
PDB UI	1pdr	1qau	Iqav	Iqlc	3pdz	1eo6	lav!	lcun
SEQ NO.	1588	1588	1588	1588	1588	1590	1591	1591

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PDB annotation	ENDOCYTOSIS/EXOCYTOSIS NSECI; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS NSECI; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	MEMBRANE PROTEIN FOUR HELIX BUNDLE, ALPHA HELIX	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	TRANSPORT PROTEIN VAMP 2; MEMBRANE FUSION PROTEIN COMPLEX, TRANSPORT PROTEIN	DESIGNED HELICAL BUNDLE DESIGNED HELICAL BUNDLE	DESIGNED HELICAL BUNDLE DESIGNED HELICAL BUNDLE		COMPLEX (BLOOD COAGULATION/INHIBITOR) AUTOPROTHROMBIN IIA;	HYDROLASE, SERINE PROTEINASE), PLASMA CALCIUM BINDING, 2 GLYCOPROTEIN, COMPLEX (BLOOD	COMPLEX (BLOOD COAGULATION/INHIBITOR) AUTOPROTHROMBIN IIA; HYDROLASE, SERINE	BINDING, 2 GLYCOPROTEIN,
Coumpound	SYNTAXIN BINDING PROTEIN 1; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	SYNTAXIN BINDING PROTEIN 1; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	SSOI PROTEIN; CHAIN: A;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	SYNAPTOBREVIN 2; CHAIN: A, E, I; SYNTAXIN 1A; CHAIN: B, F, J; SNAP-25B; CHAIN: C, G, K; SNAP-25B; CHAIN: D, H, L;	DHP1; CHAIN: NULL;	DHP1; CHAIN: NULL;		ACTIVATED PROTEIN C; CHAIN: C, L; D-PHE-PRO-MAI; CHAIN: P;	·	ACTIVATED PROTEIN C; CHAIN: C, L; D-PHE-PRO-MAI; CHAIN: P;	
SEQFOL D score				57.26	55.15						·	
PMF score	0.45	0.95	0.04			0.16	0.17		0.06		0.47	
Verify score	-0.00	0.16	0.23			0.49	0.17		0.21		0.32	
Psi Blast	3.4e-22	1.5e-38	3.4e-13	4.5e-12	9e-24	5.1e-05	3.4e-05		16-10		4.5e-12	
END	233	233	213	251	245	73	75		324		385	
STAR T AA	17	61	77	28	174	30	36		249		306	
CHAI N ID	В	В	4	¥	æ				1		Li .	
PDB ID	1dn1	1db1	1fio	Iquu	1sfc	4hb1	4hb1		laut		laut	
SEQ PO	1591	1591	1591	1591	1591	1591	1591		1592		1592	
					710							

PDB annotation	COMPLEX (BLOOD COAGULATION/INHIBITOR)	SURFACE PROTEIN MEROZOITE SURFACE ANTIGEN I, MAJOR	BLOOD-STAGE EGF-LIKE DOMAIN,	EXTRACELLULAR, MODULAR PROTEIN, SURFACE 2 ANTIGEN,	MALARIA VACCINE COMPONENT, SURFACE PROTEIN	SURFACE PROTEIN MEROZOITE	SURFACE ANTIGEN I, MAJOR	BLOOD-STAGE EGF-LIKE DOMAIN,	EXTRACELLULAR, MODULAR	PROTEIN, SURFACE 2 ANTIGEN,	MALARIA VACCINE COMPONENT,	SURFACE PROTEIN	BLOOD COAGULATION, SERINE	PROTEASE, COMPLEX, CO-FACTOR,	2 RECEPTOR ENZYME, INHIBITOR,	GLA, EGF, 3 COMPLEX (SERINE	PROTEASE/COFACTOR/LIGAND)		BLOOD COAGULATION, SERINE	PROTEASE, COMPLEX, CO-FACTOR,	2 RECEPTOR ENZYME, INHIBITOR,	GLA, EGF, 3 COMPLEX (SERINE	PROTEASE/COFACTOR/LIGAND)		BLOOD COAGULATION, SERINE	PROTEASE, COMPLEX, CO-FACTOR,	2 RECEPTOR ENZYME, INHIBITOR,	GLA, EGF, 3 COMPLEX (SERINE	PROTEASE/COFACTOR/LIGAND)	
Coumpound		MEROZOITE SURFACE PROTEIN 1; CHAIN: A;				MEROZOITE SURFACE	PROTEIN 1; CHAIN: A;						BLOOD COAGULATION	FACTOR VIIA; CHAIN: L, H;	SOLUBLE TISSUE FACTOR;	CHAIN: T, U; D-PHE-PHE-ARG-	CHLOROMETHYLKETONE	(DFFRCMK) WITH CHAIN: C;	BLOOD COAGULATION	FACTOR VIIA; CHAIN: L, H;	SOLUBLE TISSUE FACTOR;	CHAIN: T, U; D-PHE-PHE-ARG-	CHLOROMETHYLKETONE	(DFFRCMK) WITH CHAIN: C;	BLOOD COAGULATION	FACTOR VIIA; CHAIN: L, H;	SOLUBLE TISSUE FACTOR;	CHAIN: T, U; D-PHE-PHE-ARG-	CHLOROMETHYLKETONE	(DFFRCMK) WITH CHAIN: C;
SEQFOL D score																														
PMF score		0.04				0.04							0.03	•					-0.19						0.16					
Verify score		0.18				90.0	•						0.44						0.17						0.02					
Psi Blast		1.5e-09				1.5e-14							1.4e-09						3.4e-11						3e-15					
END		326				374							981						249						385					
STAR T AA		246				280							<u></u>						139						253					
CHAI N ID		Ą				A													ב						ı					
PDB 1D		læj				Icej							Idan						Idan						1dan					7
SEQ B NO:		1592				1592							1592						1592						1592					

PDB annotation	HYDROLASE/HYDROLASE INHIBITOR PROTEIN-PEPTIDE COMPLEX	HYDROLASE/HYDROLASE INHIBITOR PROTEIN-PEPTIDE COMPLEX	SERINE PROTEINASE COAGULATION FACTOR II; COAGULATION FACTOR II; FETOMODULIN, TM, CD141 ANTIGEN; EGR-CMK SERINE PROTEINASE, EGF-LIKE DOMAINS, ANTICOAGULANT COMPLEX, 2	SERINE PROTEINASE COAGULATION FACTOR II; COAGULATION FACTOR II; FETOMODULIN, TM, CD141 ANTIGEN; EGR-CMK SERINE PROTEINASE, EGF-LIKE DOMAINS, ANTICOAGULANT COMPLEX, 2	MATRIX PROTEIN EXTRACELLULAR MATRIX, CALCIUM-BINDING, GLYCOPROTEIN, 2 REPEAT, SIGNAL, MULTIGENE FAMILY, DISEASE MUTATION, 3 EGF-LIKE
Coumpound	DES-GLA FACTOR VIIA (HEAVY CHAIN); CHAIN: H, I; DES-GLA FACTOR VIIA (LIGHT CHAIN); CHAIN: L, M; (DPN)- PHE-ARG; CHAIN: C, D; PEPTIDE E-76; CHAIN: X, Y;	DES-GLA FACTOR VIIA (HEAVY CHAIN); CHAIN; H, I; DES-GLA FACTOR VIIA (LIGHT CHAIN); CHAIN: L, M; (DPN)- PHE-ARG; CHAIN: C, D; PEPTIDE E-76; CHAIN: X, Y;	THROMBIN LIGHT CHAIN; CHAIN: A, B, C, D; THROMBIN HEAVY CHAIN; CHAIN: M, N, O, P; THROMBOMODULIN; CHAIN: I, I, K, L; THROMBIN INHIBITOR L-GLU-L-GLY-L- ARM; CHAIN: E, F, G, H;	THROMBIN LIGHT CHAIN; CHAIN: A, B, C, D; THROMBIN HEAVY CHAIN; CHAIN: M, N, O, P; THROMBOMODULIN; CHAIN: I, I, K, L; THROMBIN INHIBITOR L-GLU-L-GLY-L- ARM; CHAIN: E, F, G, H;	FIBRILLIN; CHAIN: NULL;
SEQFOL D score					
PMF	-0.03	-0.18	0.01	-0.15	-0.05
Verify score	0.24	0.13	-0.18	0.03	0.01
Psi Blast	1.4e-09	3.4e-11	1.2e-14	8.5e-12	1.7e-09
END	186	249	383	402	339
STAR T AA	. 601	139		307	245
CHAI N ID	Ţ	н	П	I	
PDB ID	ldva	Idva	1dx5		1emn
SEQ ID NO:	1592	1592	1592	1592	1592

PDB annotation	DOMAIN, HUMAN FIBRILLIN-1 FRAGMENT, MATRIX PROTEIN	MATRIX PROTEIN EXTRACELLULAR MATRIX, CALCIUM-BINDING,	GLYCOPROTEIN, 2 REPEAT, SIGNAL, MULTIGENE FAMILY,	DISEASE MUTATION, 3 EGF-LIKE DOMAIN, HUMAN FIBRILLIN-1 ED A CANTENT MATERY BEOTERN	MATRIX PROTEIN	EXTRACELLULAR MATRIX, CALCHIM-BINDING	GLYCOPROTEIN, 2 REPEAT,	SIGNAL, MULTIGENE FAMILY,	DOMAIN HIMAN FIRE II IN. 1	FRAGMENT, MATRIX PROTEIN	MATRIX PROTEIN	EXTRACELLULAR MATRIX,	CALCIUM-BINDING,	GLYCOPKOIEIN, Z KEPEAI,	SIGNAL, MULTIGENE FAMILY,	DOMAIN HIMAN BIBBIT IN 1	FRAGMENT, MATRIX PROTEIN	SIGNALLING PROTEIN BINDING	PROTEIN, CYTOKINE, SIGNALLING PROTEIN	BLOOD CLOTTING	COMPLEX(SERINE	PROTEASE/COFACTOR/LIGAND),	BLOOD COAGULATION, 2 SERINE	PROTEASE, COMPLEA, CO-FACTOR,
Coumpound		FIBRILLIN; CHAIN: NULL;			FIBRILLIN; CHAIN: NULL;						FIBRILLIN; CHAIN: NULL;							TUMOR NECROSIS FACTOR	RECEPTOR; CHAIN: A, B;	BLOOD COAGULATION	FACTOR VIÍA; CHAIN: L;	BLOOD COAGULATION	FACTOR VIIA; CHAIN: H;	SOLUBLE 113SUE FACTOR;
SEQFOL D score		56.86										•					•	55.46	·		·			
PMF score					0.55						0.13					-				0.03				
Verify score					0.33						0.36			•						0.10				
Psi Blast		1.7e-15			1.7e-15						8.5e-14							3e-10		1.4e-09				
END		382			380		-				402							357		186				
STAR T AA		277			302						337							194		109				
CHAI N ID			= 							•								Ą		ı				
PDB ID		lemn			lemn						1emn							lext		1fak				1
SEQ No.		1592			1592						1592							1592		1592				

ac	,				i .														
PDB annotation RECEPTOR ENZYME 3 INJETITOR	GLA, EGF, COMPLEX (SERINE 4 PROTEASE/COFACTOR/LIGAND), BLOOD CLOTTING	BLOOD CLOTTING COMPLEX(SERINE PROTEASE/COFACTOR/LIGAND),	BLOOD COAGULATION, 2 SERINE PROTEASE, COMPLEX, CO-FACTOR, RECEPTOR ENZYME, 3 INHIBITOR,	GLA, EGF, COMPLEX (SERINE 4 PROTEASE/COFACTOR/LIGAND), BLOOD CLOTTING	HORMONE RECEPTOR HORMONE RECEPTOR, INSULIN RECEPTOR	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	COMPLEX (BLOOD	COAGOLATION/INFIBITOR) CHRISTMAS FACTOR; COMPLEX,	INHIBITOR, HEMOPHILIA/EGF,	BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCUIM-	BINDING, HYDROLASE, 3	GLYCOPROTEIN	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR: COMPLEX
Coumpound CHAN: T. 51 15: CHAIN: F.	ODAIN: 1, JELD, CDAIN: 1,	BLOOD COAGULATION FACTOR VIIA; CHAIN: L; BLOOD COAGULATION	FACTOR VIIA; CHAIN: H; SOLUBLE TISSUE FACTOR; CHAIN: T; 5L15; CHAIN: 1;		INSULIN-LIKE GROWTH FACTOR RECEPTOR 1; CHAIN:	I. AMININ: CHAIN: NIII.I.	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	FACTOR IXA; CHAIN: C, L,; D-	rie-fro-arg; Chain: 1;					FACTOR IXA; CHAIN: C, L,; D- PHE-PRO-ARG; CHAIN: I;
SEQFOL D score										70.13	,,						•		
PMF		-0.18			0.00	0.31	-0.12	-0.14	-0.18		-0.14	-0.19	-0.12						-0.07
Verify score		0.08			0.20	0.15	0.44	0.29	0.19		0.37	0.07	0.58						0.44
Psi Blast		3.4e-11			4.5e-12	3.4e-13	3.4e-18	7.5e-19	3.4e-17	7.5e-19	3.4e-12	le-11	3.4e-09						1.5e-10
END		249			380	242	281	331	382	396	193	403	173						229
STAR T AA		139			246	112	146	147	230	231	27	295	109						139
CEAI N ID		卢			A								٦ 						i
PDB ID		l fak	· · · · · · · · · · · · · · · · · · ·		ligr	Iklo	Iklo	1klo	1klo	1klo	1klo	Iklo	1pfx						lpfx
SEQ B G		1592			1592	1592	1592	1592	1592	1592	1592	1592	1592						1592

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INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	PLASMINOGEN ACTIVATION	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD
	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	T-PLASMINOGEN ACTIVATOR FI-G; 1TPG 7 CHAIN: NULL; 1TPG 8	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;
	-0.09	-0.17	-0.18	0.71	-0.05	-0.12
	0.55	0.23	0.26	0.49	0.91	0.23
	1.4e-09	3.4e-10	7.5e-09	1.3e-11	3e-10	3.4e-09
	981	249	338	385	180	681
	601	143	253	283	128	109
	1	7	J	1		Т
	lqfk	1qfk	1qfk	1qfk	Itpg	1xka
	1592	1592	1592	1592	1592	1592
		Iqfk L 109 186 1.4e-09 0.55 -0.09 COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C; CHAIN: C;	196 186 1.4e-09 0.55 -0.09 COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CIAIN: C; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C; CHAIN: C;	Iqfk L 109 186 1.4e-09 0.55 -0.09 COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTDYL INHIBITOR; CHAIN: C; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: CHAIN: C; CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAIN: CHAI	1qfk L 109 186 1.4e-09 0.55 -0.09 COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN:	196 186 1.4e-09 0.55 -0.09 COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: CHAIN; CHAIN; CHAIN; CHAIN; CHAIN; CHAIN; CHAIN: CHAIN; CHAIN; CHAIN; CHAIN; CHAIN: CHAIN: CHAIN; CHAIN: NULL; CHAIN: CHAIN: NULL; CHAIN: CHA

PDB annotation	COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN						CHAPERONE HSP40; CHAPERONE, HEAT SHOCK, PROTEIN FOLDING, DNAK
Coumpound		BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3		DNAJ; CHAIN: NULL;
SEQFOL D score				53.26		60.84				81.78
PMF score		-0.03	0.46		-0.12		-0.19	-0.05		
Verify score		0.04	0.43		0.22		0.04	-0.00		
Psl Blast		7.5e-09	1.2e-11	1.2e-11	3.4e-14	1.5e-16	1.4e-15	3.4e-13		3.4e-28
END		328	382	395	264	340	342	221		11
STAR T AA		255	283	305	114	152	183	. 26		1
CHAI N ID		ı	1	1	A	A	Ą	A	•	
EDB CII		lxka	lxka	Ixka	9wga	9wga	в дм6	9wga		0bq1
SEQ ID NO:		1592	1592	1592	1592	1592	1592	1592		1593

PDB annotation	CHAPERONE HSP40; CHAPERONE, HEAT SHOCK, PROTEIN FOLDING, DNAK	MOLECULAR CHAPERONE HDJ-1; MOLECULAR CHAPERONE	MOLECULAR CHAPERONE HDJ-1; MOLECULAR CHAPERONE	MOLECULAR CHAPERONE HDJ-1; MOLECULAR CHAPERONE					COMPLEX (DNA-BINDING	PROTEIN/DNA)							GENE REGULATION/DNA LEF-1	HMG; LEF1, HMG, TCR-A,	TRANSCRIPTION FACTOR, DNA	BINDING, DNA 2 BENDING,	COMPLEX (HMG DOMAIN/DNA), GENE REGIT ATTON/DNA	GENE REGULATION/DNA LEF-1 HMG: LEF1, HMG, TCR-A
Соитроива	DNAJ; CHAIN: NULL;	HUMAN HSP40; CHAIN: NULL;	HUMAN HSP40; CHAIN: NULL;	HUMAN HSP40; CHAIN: NULL;	DNA-BINDING HIGH MOBILITY GROUP PROTEIN	FRAGMENT-B (HMGB) (DNA- PINDING 14MF 3 HMG BOY	DOMAIN B OF RAT HMG1)	(NMR, 1 STRUCTURE) 1HME 4	HUMAN SRY; 1HRY 6 CHAIN:	A; IHRY 7 DNA; IHRY 9 CHAIN: B; IHRY 10	DNA-BINDING HIGH	MOBILITY GROUP PROTEIN 1	(HMG1) BOX 2, COMPLEXED	MERCAPTOFTHANOL ONMR	MINIMIZED AVERAGE	STRUCTURE) 1HSM 4	LYMPHOID ENHANCER-	BINDING FACTOR; CHAIN: A;	DNA (5'- CHAIN: B; DNA (5'-	CHAIN: C;		LYMPHOID ENHANCER- BINDING FACTOR: CHAIN: A:
SEQFOL D score		86.98															125.69					
PMF score	1.00		1.00	1.00	0.43				0.24		0.75											1.00
Verify score	0.84		0.97	0.97	-0.13				0.01		0.11											0.31
Psi Blast	3.4e-28	16-33	3.46-27	1e-33	1.46-21				1e-27		3.4e-22				•		3e-22	_				3e-22
END	89	78	89	77	416				416		419						429					420
STAR T AA	3	2	3	3	351				350		351						344					345
CHAI N ID									Ą			_					¥	_				¥
PDB ID	1bq0	1bdj	Ihdj	1hdj	1bme				1bry		Ihsm						2lef					2lef
SEQ NO:	1593	1593	1593	1593	1594				1594		1594						1594					1594

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PDB annotation	TRANSCRIPTION FACTOR, DNA BINDING, DNA 2 BENDING, COMPLEX (HMG DOMAIN/DNA), GENE REGULATION/DNA	GENE REGULATION/DNA LEF-1 HMG; LEF1, HMG, TCR-A, TRANSCRIPTION FACTOR, DNA BINDING, DNA 2 BENDING, COMPLEX (HMG DOMAIN/DNA), GENE REGULATION/DNA		DNA BINDING PROTEIN HMG BOX, DNA BENDING, DNA RECOGNITION, CHROMATIN, NMR, DNA 2 BINDING PROTEIN	COMPLEX (DNA-BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA)	GENE REGULATION/DNA LEF-1 HMG; LEF1, HMG, TCR-A, TRANSCRIPTION FACTOR, DNA BINDING, DNA 2 BENDING, COMPLEX (HMG DOMAIN/DNA),	GENE REGULATION/DNA	GENE REGULATION/DNA LEF-1 HMG; LEF1, HMG, TCR-A, TRANSCRIPTION FACTOR. DNA	BINDING, DNA 2 BENDING,
Coumpound	DNA (5'- CHAIN: B; DNA (5'- CHAIN: C;	LYMPHOID ENHANCER- BINDING FACTOR; CHAIN: A; DNA (5'- CHAIN: B; DNA (5'- CHAIN: C;		NON HISTONE PROTEIN 6 A; CHAIN: A;	HUMAN SRY; IHRY 6 CHAIN: A; IHRY 7 DNA; IHRY 9 CHAIN: B; IHRY 10	HUMAN SRY; 1HRY 6 CHAIN: A; 1HRY 7 DNA; 1HRY 9 CHAIN: B; 1HRY 10	HUMAN SRY; 1HRY 6 CHAIN: A; 1HRY 7 DNA; 1HRY 9 CHAIN: B; 1HRY 10	LYMPHOID ENHANCER- BINDING FACTOR; CHAIN: A; DNA (5'- CHAIN: B; DNA (5'- CHAIN: C;		LYMPHOID ENHANCER- BINDING FACTOR; CHAIN: A; DNA (5'- CHAIN: B; DNA (5'-	CHAIN: C;
SEQFOL D score						83.75		57.47			
PMF score		1.00		0.89	0.78		0.81			0.74	
Verify score		0.40		0.10	-0.10		0.04			-0.29	
Psi Blast		3.4e-20		8.5e-21	le-21	7.5e-27	7.5e-27	6e-27		8.5e-17	
END		420	ì	106	114		115	128		128	
STAR T AA		350		31	43	43	44	43		44	
CHAI N ID		∢		¥	Ą	A	Ą	∢		∢	
PDB ID		2lef		lcg7	lbry	1hry	1hry	2lef		2lef	
SEQ NO:		1594	905.	8651	1598	1598	1598	1598		1598	

PDB annotation	COMPLEX (FIMG DOMAIN/DNA), GENE REGULATION/DNA	GENE REGULATION/DNA LEF-1 HMG; LEF1, HMG, TCR-4, TRANSCRIPTION FACTOR, DNA BINDING, DNA 2 BENDING, COMPLEX (HMG DOMAIN/DNA), GENE REGULATION/DNA	COMPLEX (TRANSDUCER/TRANSDUCTION) GT BETA-GAMMA; MEKA, PP33; PHOSDUCIN, TRANSDUCIN, BETA-GAMMA, SIGNAL TRANSDUCTION, 2 REGULATION, PHOSPHORYLATION, G PROTEINS, THIOREDOXIN, 3 VISION, MEKA, COMPLEX (TRANSDUCER/TRANSDUCTION)	SH3 DOMAIN WW DOMAIN, FBP28, SIGNAL TRANSDUCTION	SH3 DOMAIN WW DOMAIN, FBP28, SIGNAL TRANSDUCTION	SH3 DOMAIN WW DOMAIN, FBP28, SIGNAL TRANSDUCTION	SH3 DOMAIN WW DOMAIN, FBP28, SIGNAL TRANSDUCTION	SH3 PROTOTYPE WWPROTOTYPE, PROTEIN DESIGN	SH3 PROTOTYPE WWPROTOTYPE, PROTEIN DESIGN	STRUCTURAL PROTEIN EF-HAND LIKE DOMAIN, WW DOMAIN
Coumpound		LYMPHOID ENHANCER- BINDING FACTOR; CHAIN: A; DNA (5'- CHAIN: B; DNA (5'- CHAIN: C;	TRANSDUCIN; CHAIN: B, G; PHOSDUCIN; CHAIN: P;	FORMIN BINDING PROTEIN; CHAIN: A;	FORMIN BINDING PROTEIN; CHAIN: A;	FORMIN BINDING PROTEIN; CHAIN: A;	FORMIN BINDING PROTEIN; CHAIN: A;	WWPROTOTYPE; CHAIN: A;	WWPROTOTYPE; CHAIN: A;	DYSTROPHIN; CHAIN: A;
SEQFOL D score										
PMF score		0.71	-0.20	96.0	0.94	0.90	96.0	0.87	0.35	0.22
Verify score		0.27	0.10	09:0	0.72	0.17	0.09	0.03	0.64	0.27
Psi Blast		6e-27	1.5e-09	5.1e-07	1.5e-09	3e-09	8.5e-08	3.4e-09	3.4e-12	3.4e-06
END AA		116	173	160	161	121	121	159	118	117
STAR T AA		45	6	133	133	18	22	129	82	82
CBAI N ID		¥	ц	Ą	A	¥	A	Ą	¥	A
PDB ID		2lef	2trc	1601	1091	1091	1e0I	1e0m	le0m	leg3
SEQ ID NO:		1598	1599	1602	1602	1602	1602	1602	1602	1602

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PDB annotation	ISOMERASE PINI; PEPTIDYL- PROLINE ISOMERASE, WW DOMAIN, PHOSPHOSERINE BINDING	SH3 DOMAIN WW DOMAIN, FBP28, SIGNAL TRANSDUCTION	SH3 DOMAIN WW DOMAIN, FBP28, SIGNAL TRANSDUCTION	SH3 PROTOTYPE WWPROTOTYPE, PROTEIN DESIGN	SH3 PROTOTYPE WWPROTOTYPE, PROTEIN DESIGN	ISOMERASE PINI; PEPTIDYL. PROLINE ISOMERASE, WW	DOMAIN, PHOSPHOSERINE BINDING		TRANSFERASE TRANSFERASE, METABOLIC ROLE, PYRIDOXAL 5'-	rhosrhait	AMINOTRANSFERASE PSAT; AMINOTRANSFERASE, L-SERINE BIOSYNTHESIS	AMINOTRANSFERASE PSAT; AMINOTRANSFERASE, L-SERINE	BIOSYNTHESIS	TRANSFERASE PSAT; AMINOTRANSFERASE,	PYRIDOXAL-5'-PHOSPHATE,	PHOSPHOSERINE, 2 ALKALIPHILIC	LYASE ALPHA/BETA FOLD	TRANSFERASE SHMT; HYDROXYMETHYL TRANSFERASE,
Coumpound	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE NIMA- CHAIN: B; Y(SEP)PT(SEP)S PEPTIDE; CHAIN: C;	FORMIN BINDING PROTEIN; CHAIN: A;	FORMIN BINDING PROTEIN; CHAIN: A;	WWPROTOTYPE; CHAIN: A;	WWPROTOTYPE; CHAIN: A;	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE NIMA- CHAIN: B:	Y(SEP)PT(SEP)S PEPTIDE; CHAIN: C:		SERINE HYDROXYMETHYLTRANSFER	ASE; CAAIN: A;	PHOSPHOSERINE AMINOTRANSFERASE; CHAIN: A, B;	PHOSPHOSERINE AMINOTRANSFERASE; CHAIN:	A, B;	PHOSPHOSERINE AMINOTRANSFERASE; CHAIN:	, '		CSDB PROTEIN; CHAIN: A;	SERINE HYDROXYMETHYLTRANSFER
SEQFOL D score										67,830	355.62							
PMF score	0.01	0.82	0.94	66.0	0.99	0.01			0.78			1.00		1.00			1.00	0.59
Verify score	-0.06	-0.19	0.72	0.25	0.25	-0.06			0.20			0.71		0.84			0.28	0.07
Psi Blast	6e-06	1e-07	1.5e-09	6.8e-05	50-99	90-99			1.7e-67		1.7e-58	1.7e-58		5.1e-60			1.7e-61	5.1e-67
END AA	185	125	124	121	121	148			387	200	389	389		389			389	387
STAR T AA	132	8	96	96	96	95			-	1	9	27		26			=	
CHAI N ID	В	٧	Ą	V	٧	В			A		∢	¥		٧			Ą	¥
PDB ID	1f8a	160	1e0l	1e0m	le0m	e8J1			15j4		10ja	n[d]		1614			1c0n	1cj0
SEQ D NO:	1602	1603	1603	1603	1603	1603			9091		1600	9091		1606			1606	1606

PDB m	CHAI	STAR	END	Psi Blast	Verify	PMF	SEQFOL	Coumpound	PDB annotation
		¥ .	{		31036	31006	מ אנחוני		
								ASE; CHAIN: A, B;	1 CARBON METABOLISM
ı	4	∞	386	1.7e-67	0.11	0.66		SERINE HYDROXYMETHYLTRANSFER ASE: CHAIN: A R C D:	TRANSFERASE SHMT, SBRINE METHYLASE, ALPHA PLP ASPARTATE, AMINO
									TRANSFERASE, (AAT)-LIKE FOLD
1	4	-	386	1.7e-66	-0.02	0.42		SERINE HYDROXYMETHYLTRANSFER	TRANSFERASE SHMT; SERINE- GLYCINE CONVERSION,
	_							ASE; CHAIN: A, B, C, D;	PYRIDOXAL 5'-PHOSPHATE, 2 TETRAHYDROFOLATE,
- 1									ASYMMETRIC DIMER
1	V	-	344	3.4e-62	0.15	0.18		SERINE	TRANSFERASE TRANSFERASE,
								HYDROXYMETHYLTRANSFER ASE: CHAIN: A:	METABOLIC ROLE, PYRIDOXAL 5'- PHOSPHATE
1	¥	26	343	1.7e-49			282.66	PHOSPHOSERINE	AMINOTRANSFERASE PSAT;
•								AMINOTRANSFERASE; CHAIN:	AMINOTRANSFERASE, L-SERINE
	_					1		A, B;	BIOSYNTHESIS
1bjn	4	27	337	1.7e-49	0.58	1.00		PHOSPHOSERINE	AMINOTRANSFERASE PSAT;
								A, B;	BIOSYNTHESIS
1	¥	25	336	5.1e-51	0.59	1.00		PHOSPHOSERINE	TRANSFERASE PSAT;
								AMINOTRANSFERASE; CHAIN:	AMINOTRANSFERASE,
								A;	PYRIDOXAL-5'-PHOSPHATE,
- 1						•			PHOSPHOSERINE, 2 ALKALIPHILIC
1c0n	Ą	11	344	8.5e-56	-0.01	0.48		CSDB PROTEIN; CHAIN: A;	LYASE ALPHA/BETA FOLD
Icj0	4		344	6.8e-62	-0.04	0.43		SERINE	TRANSFERASE SHMT;
		•						HYDROXYMETHYLTRANSFER	HYDROXYMETHYL TRANSFERASE,
								ASE; CHAIN: A, B;	1 CARBON METABOLISM
1dfo	∢	٣	344	5.1e-66	0.07	-0.02		SERINE	TRANSFERASE SHMT, SERINE
								HYDROXYMETHYLTRANSFER	METHYLASE; ALPHA PLP
	-							ASE; CHAIN: A, B, C, D;	ASPARTATE, AMINO
- 1									TRANSFERASE, (AAT)-LIKE FOLD
	¥	_	344	5.1e-59	20.0	0.07		SERINE	TRANSFERASE SHMT; SERINE-
- 1								HYDROXYMETHYLTRANSFER	GLYCINE CONVERSION,

PDB annotation	PYRIDOXAL 5'-PHOSPHATE, 2 TETRAHYDROFOLATE, ASYMMETRIC DIMER	COMPLEX (TRANSCRIPTION FACTOR/DNA) TRANSCRIPTION FACTOR, PROTEIN-DNA COMPLEX, CYTOKINE 2 ACTIVATION, COMPLEX (TRANSCRIPTION FACTOR/DNA)	CHAPERONE ARCHAEAL PROTEIN	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN		LIGASE CBL, UBCH7, ZAP-70, E2, UBIQUITIN, E3, PHOSPHORYLATION, 2 TYROSINE KINASE, UBIQUITINATION, PROTEIN DEGRADATION,	TRANSFERASE RECEPTOR TYROSINE KINASE, PROTEIN INTERACTION MODULE, 2 DIMERIZATION DOMAIN, TRANSFERASE
Coumpound	ASE; CHAIN: A, B, C, D;	STAT3B; CHAIN: A; 18-MER DESOXYOLIGONUCLEOTIDE; CHAIN: B;	PREFOLDIN; CHAIN: A; PREFOLDIN; CHAIN: B; PREFOLDIN; CHAIN: C;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN) 1CHC 3 (NMR, 1 STRUCTURE) 1CHC 4	SIGNAL TRANSDUCTION PROTEIN CBL; CHAIN: A; ZAP- 70 PEPTIDE; CHAIN: B; UBIQUITIN-CONJUGATING ENZYME E12-18 KDA UBCH7; CHAIN: C;	EPHA4 RECEPTOR TYROSINE KINASE; CHAIN: A;
SEQFOL D score				70.36			
PMF score		0.04	0.11		0.01	0,22	0.04
Verify		-0.48	-0.33		-0.23	-0.31	0,02
Psi Blast		0.00051	1.2e-06	7.5e-05	3.4e-11	0.003	6.8e-14
END		70	82	345	603	611	882
STAR T AA			1	96	552	515	828
CHAI N ID		¥	Ą	¥	 	∢	4
FDB CI		16g1	1fxk	lquu ,	Ichc	1fbv	150x
SEQ ID NO:		1608	1608	1609	1612	1612	1614

	r	T			r	·		,
PDB annotation	SIGNAL TRANSDUCTION SAM DOMAIN, EPH RECEPTOR, SIGNAL TRANSDUCTION, OLIGOMER	CALCIUM-BINDING PROTEIN CALB; CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	CALCIUM-BINDING PROTEIN CALB, CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	CALCTUM-BINDING PROTEIN CALB, CALCTUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCTUM- BINDING PROTEIN	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	LIPID DEGRADATION PLC-DI; PHOSPHORIC DIESTER HYDROLASE, HYDROLASE, LIPID
Coumpound	EPHB2; CHAIN: A, B, C, D, E, F, G, H;	PROTEIN KINASE C (BETA); CHAIN: A, B;	PROTEIN KINASE C (BETA); CHAIN: A, B;	PROTEIN KINASE C (BETA); CHAIN: A, B;	SYNAPTOTAGMIN I; CHAIN: A;	SYNAPTOTAGMIN I; CHAIN: A;	SYNAPTOTAGMIN I; CHAIN: A;	PHOSPHOINOSITIDE-SPECIFIC PHOSPHOLIPASE C, CHAIN: A, B;
SEQFOL D score								
PMF score	-0.09	1.00	1.00	0.37	1.00	0.59	0.89	0.00
Verify score	0.21	0.08	0.32	0.33	-0.05	-0.02	0.85	-0.50
Psi Blast	6.8e-15	1.5e-26	4.5e-16	1.5e-36	3e-28	1.2e-08	6.8e-22	1.5e-14
END	882	716	864	871	717	721	856	669
STAR T AA	825	588	728	755	588	819	732	909
CHAI N ID	A	Ą	Y	A	∢	∢	A	Ą
PDB ID	1b4f	1825	1a25	1a2.5	Ibyn	1byn	lbyn	1djx
SEQ ID NO:	1614	1616	1616	1616	1616	9191	1616	1616

							,		
PDB annotation	DEGRADATION, 2 TRANSDUCER, CALCIUM-BINDING, PHOSPHOLIPASE C, 3 PHOSPHOINOSITIDE-SPECIFIC	ENDOCYTOSIS/EXOCYTOSIS BETA SANDWICH, CALCIUM ION, C2 DOMAIN	TRANSFERASE CALCIUM++, PHOSPHOLIPID BINDING PROTEIN, CALCIUM-BINDING 2 PROTEIN, PHOSPHATIDYLSERINE, PROTEIN KINASE C	TRANSFERASE CALCIUM++, PHOSPHOLIPID BINDING PROTEIN, CALCIUM-BINDING 2 PROTEIN, PHOSPHATIDYLSERINE, PROTEIN KINASE C	TRANSFERASE CALCIUM++, PHOSPHOLIPID BINDING PROTEIN, CALCIUM-BINDING 2 PROTEIN, PHOSPHATIDYLSERINE, PROTEIN KINASE C	HYDROLASE CALB DOMAIN; HYDROLASE, C2 DOMAIN, CALB DOMAIN			ENDOCYTOSIS/EXOCYTOSIS C2-
Coumpound		SYNAPTOTAGMIN III; CHAIN: A;	PROTEIN KINASE C, ALPHA TYPE; CHAIN: A;	PROTEIN KINASE C, ALPHA TYPE; CHAIN: A;	PROTEIN KINASE C, ALPHA TYPE; CHAIN: A;	PHOSPHOLIPASE A2; CHAIN: NULL;	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	CALCIUMPHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	RABPHILIN 3-A; CHAIN: A;
SEQFOL D score									
PMF score	!	1.00	1.00	0.99	0.17	0.58	1.00	0.59	0.36
Verify score		0.13	-0.11	0.20	0.12	-0.09	0.12	0.39	0.07
Psi Blast		8.5e-59	1.26-27	4.5e-14	1.7e-39	9e-20	e-30	6.8e-22	3.4e-46
END		875	716	845	872	726	717	856	874
STAR T AA		587	588	728	751	909	588	732	730
CHAI N ID		٧	٧	¥	∢				A
PDB ID		1dqv	1dsy	Idsy	1dsy	Irlw	Irsy	lrsy	3rpb
SEQ NO.		1616	1616	1616	1616	1616	1616	1616	1616

	T	7	225	222	2.2	1			Γ
PDB annotation	DOMAINS, C2B-DOMAIN, RABPHILIN, ENDOCYTOSIS/EXOCYTOSIS		CALCIUM-BINDING PROTEIN CALB; CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	CALCIUM-BINDING PROTEIN CALB; CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	CALCIUM-BINDING PROTEIN CALB; CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	HYDROLASE CPLA2; PHOSPHOLIPASE, LIPID-BINDING, HYDROLASE
Coumpound			PROTEIN KINASE C (BETA); CHAIN: A, B;	PROTEIN KINASE C (BETA); CHAIN: A, B;	PROTEIN KINASE C (BETA); CHAIN: A, B;	SYNAPTOTAGMIN I; CHAIN: A;	SYNAPTOTAGMIN I; CHAIN: A;	SYNAPTOTAGMIN I; CHAIN: A;	CYTOSOLIC PHOSPHOLIPASE A2; CHAIN: A, B;
SEQFOL D score					59.65				
PMF score			0.34	1.00		0.21	1.00	1.00	-0.05
Verify score			0.28	0.08		0.26	0.33	-0.05	0.13
Psi Blast			6.8e-27	1.5e-26	1.5e-26	6.8e-23	1.7e-27	3e-28	1.7e-16
END			351	197	208	343	196	198	333
STAR T AA			230	69	69	221	69	69	230
CHAI N ID			¥	¥	ď	⋖	«	V	Ą
PDB ID			1a25	1a25	1a25	1byn	Ibyn	1byn	Icjy
SEQ D NO:			1617	1617	1617	1617	1617	1617	1617

PDB annotation	ENDOCYTOSIS/EXOCYTOSIS BETA SANDWICH, CALCIUM ION, C2 DOMAIN	TRANSFERASE CALCIUM++, PHOSPHOLIPID BINDING PROTEIN, CALCIUM-BINDING 2 PROTEIN, PHOSPHATIDYL SERINE, PROTEIN KINASE C	TRANSFERASE CALCIUM++, PHOSPHOLIPID BINDING PROTEIN, CALCIUM-BINDING 2 PROTEIN, PHOSPHATIDYLSERINE, PROTEIN KINASE C	TRANSFERASE CALCIUM++, PHOSPHOLIPID BINDING PROTEIN, CALCIUM-BINDING 2 PROTEIN, PHOSPHATIDYLSERINE, PROTEIN KINASE C	HYDROLASE CALB DOMAIN; HYDROLASE, C2 DOMAIN, CALB DOMAIN				
Coumpound	SYNAPTOTAGMIN III; CHAIN: A;	PROTEIN KINASE C, ALPHA TYPE; CHAIN: A;	PROTEIN KINASE C, ALPHA TYPE; CHAIN: A;	PROTEIN KINASE C, ALPHA TYPE; CHAIN: A;	PHOSPHOLIPASE A2; CHAIN: NULL;	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) 1RSY 3	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	CALCIUMPHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) 1RSY 3	CALCIUM/PHOSPHOLIPID
SEQFOL D score							69.42		
PMF score	0.39	0.13	0.70	1.00	0.58	0.07		1.00	1.00
Verify score	-0.26	0.24	-0.23	-0.11	-0.09	0.16		0.39	0.12
Psi Blast	3.4e-52	1.2e-28	3.4e-21	1.2e-27	9e-20	6.8e-23	96-30	1.7e-27	6e-30
END AA	356	351	203	197	207	343	200	196	198
STAR T AA	11	232	89	69	87	221	62	69	69
CHAI N ID	⋖	K	¥	A					
PDB ID	Idqv	Idsy	ldsy	Idsy	1rlw	Irsy	Irsy	lrsy	lrsy
SEQ NO:	1617	1617	1617	1617	1617	1617	1617	1617	1617

PDB annotation		ENDOCYTOSIS/EXOCYTOSIS C2-DOMAINS, C2B-DOMAIN, RABPHILIN, ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS C2- DOMAINS, C2B-DOMAIN, RABPHILIN, ENDOCYTOSIS/EXOCYTOSIS		ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	TRANSFERASE CALCIUM++, PHOSPHOLIPID BINDING PROTEIN, CALCIUM-BINDING 2 PROTEIN, PHOSPHATIDYLSERINE, PROTEIN KINASE C	•	POTASSIUM CHANNELS POTASSIUM CHANNELS, TETRAMERIZATION DOMAIN, X- RAY 2 STRUCTURE, APLYSIA KV1.1	GENE REGULATION POZ DOMAIN; PROTEIN-PROTEIN INTERACTION DOMAIN, TRANSCRIPTIONAL 2
Coumpound	BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	RABPHILIN 3-A; CHAIN: A;	RABPHILIN 3-A; CHAIN: A;	!	SYNAPTOTAGMIN I; CHAIN: A;	PROTEIN KINASE C, ALPHA TYPE; CHAIN: A;	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	POTASSIUM CHANNEL KVI.1; CHAIN: NULL;	PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;
SEQFOL D score									
PMF score		0.45	0.96		0.17	0.13	0.16	1.00	0.65
Verify score		0.15	0.22		0.29	-0.00	0.14	0.38	0.65
Psi Blast		3.4e-27	8.5e-20		1.3e-06	0.0045	1.5e-05	5.1e-26	6.8e-05
END		354	206		366	356	366	68	104
STAR T AA		236	71		264	264	264	3	S
CHAI N ID		Ą	4		¥	4			¥
PDB ID		Зтрь	Зтрр		1byn	1dsy	lrsy	1a68	1buo
SEQ ID NO:		1617	1617		1618	1618	1618	1620	1620

PDB annotation	REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION	SIGNALING PROTEIN VOLTAGE- GATED POTASSIUM CHANNEL, ASSEMBLY DOMAIN, TETRAMER	METAL TRANSPORT ION CHANNEL, OXIDOREDUCTASE, BETA SUBUNIT	SIGNALING PROTEIN VOLTAGE- GATED POTASSIUM CHANNEL, TETRAMERIZATION DOMAIN, 2 INTRACELLULAR GATE, TETRAMER	PROTON TRANSPORT POTASSIUM CHANNELS, TETRAMERIZATION DOMAIN, X-RAY STRUCTURE, 2 APLYSIA KV1.1, PROTON TRANSPORT	POTASSIUM CHANNEL POTASSIUM CHANNEL, TETRAMERIZATION DOMAIN, MOLECULAR 2 RECOGNITION, ZINC-BINDING	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 22
Coumpound		KV1.2 VOLTAGE-GATED POTASSIUM CHANNEL; CHAIN: A, B, C, D, E, F, G, H;	KV BETA2 PROTEIN; CHAIN: A; POTASSIUM CHANNEL KVI.1; CHAIN: E;	KVI.2 VOLTAGE-GATED POTASSIUM CHANNEL; CHAIN: A, B, C, D;	POTASSIUM CHANNEL KVI.1; CHAIN: A;	POTASSIUM CHANNEL PROTEIN SHAW; CHAIN: NULL;	ALPHA SPECTRIN; CHAIN: A, B, C;	ÁLPHÁ SPECTRIN; CHÁIN: A, B, C;
SEQFOL D score								53.11
PMF score	·	66.0	66.0	0.82	0.95	1.00	0.01	
Verify score		0.28	0.31	-0.10	0.38	0.55	-0.18	
Psi Blast		3.4e-25	1.5e-26	1.7e-26	1.2e-26	8.5e-29	0.003	0.003
END AA		68	92	101	101	102	158	212
STAR T AA		3	2	3	3	2	17	
CHAI N ID		A	ជា	∢	٧		V .	٧
PDB ID		1dsx	1exb	Iqdv	рп	3kvt	lcun	lcun
SEQ 1D NO:		1620	1620	1620	1620	1620	1621	1621

Coumpound PDB annotation	TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	+	CYCLIN HOMOLOG; CHAIN: A; CELL CYCLE REGULATION CELL CYCLE REGULATION.	HERPESVIRUS SAIMIRI, VIRAL CYCLIN	CYCLIN H; CHAIN: NULL; CELL DIVISION RCYCLIN H	(RECOMBINANI); CYCLIN, CELL CYCLE, CYCLE, CELL DIVISION, NUCLEAR	z	COMMITMENT OBECIETO COOT BY DEBENDENT VENASE 2 CDV2 B22			PHOSPHORYLATION, SUBSTRATE	1	CYCLIN A; CHAIN: NOLL; BINDING PROTEIN CYCLIN, CELL CYCLE, KINASE-REGULATORY.	SUBUNIT, 2 BINDING PROTEIN	PEPTIDE;		DE BINDING	SITE; CHAIN: B, C; PROTEIN	PEPTIDE;	OLIGONUCLEOTIDE BINDING ZINC FINGER, DNA-BINDING	SITE; CHAIN: B, C; PROTEIN	PEPTIDE;	 OLIGONUCLEOTIDE BINDING ZINC FINGER, DNA-BINDING
SEQFOL D score																							
PMF score		200	0.37		0.30		9.76						0.77		0.84				68'0			0.70	
Verify score			0.03		0.03		0.33					9,0	0.40		0.35				-0.10			-0.01	
Psi Blast			1.4e-19		1.2e-12		8.5e-42			•			1.76-40		1.2e-19	·			6.8e-22			1.4e-25	
END			149		148		148					١	140		169				134			165	
STAR T AA		إ	25		78		14					į	*		110				33			2	 _
CHAI N ID			∢				ф								٧				4			٧	
EDB UD		;	7nq I		1jkw		ldmz		_				III AII		lalh				laih			laih	 1
SEQ ID NO:			1623		1623		1623						1023		1624				1624			1624	

PDB annotation	PROTEIN	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2
Coumpound	SITE; CHAIN: B, C;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;
SEQFOL D score										·						58.17				,												•	
PMF		0.92				0.46					0.75										0.18					86.0					90.0		
Verify score		0.35				-0.29					90.0										-0.00					0.08					0.44		
Psi Blast		3.4e-33				1.7e-41					3.4e-45					3.4e-45					6.86-38					1.5e-13					1.5e-11		
END		169				134					165					166					93					134					165		
STAR T AA		109				33					89_					89					<i>L</i>					107					135		
CHAI N ID		, O				၁					ပ					် ၁					၁					ڻ ن					ڻ ن		
PDB CI		Imey				1mey					1mey					lmey					Imey					lmey					lmey		
SEQ ID NO:		1624				1624					1624					1624					1624					1624					1624		

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PDB annotation	CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION REGULATIONIDNA) IFIIIA; 5S GENE: NMR. TFIIIA, PROTEIN, DNA.	TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 CTR ANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S	GENE; NMR, TFIIIA, PROTEIN, DNA,	TRANSCRIPTION FACTOR, 5S RNA 2	GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	IKANSCKIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION REGIT ATTON/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION REGULATION/DNA)
Coumpound		TRANSCRIPTION FACTOR IIIA; CHAIN: A; SS RNA GENE; CHAIN: E. F.			TRANSCRIPTION FACTOR IIIA; CHAIN: A: 58 RNA GENE:	CHAIN: E, F;					YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS PS	INITIATOR ELEMENT DNA;	CHAIN: A, B;				YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;			
SEQFOL D score																		51.82						
PMF score		0.12			0.25						-0.02													
Verify score		0.43			-0.23						0.21													
Psi Blast		10-14			3.4e-17						1.7e-13							5.1e-28	•					
END		691			165						169							166			•			
STAR T AA		110	-		69						117				_			30		-				
CHAI N ID		A			¥		•				ပ			٠				O						
PDB ID		£#1			EHI						lubd				_			lubd						
SEQ D NO:		1624			1624				•		1624							1624						
							73	1			•													

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PDB annotation	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ADR1, ZINC FINGER, NMR		COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-BINDING PROTEIN/DNA)	OXIDOREDUCTASE PDZ DOMAIN, NNOS, NITRIC OXIDE SYNTHASE	OXIDOREDUCTASE PDZ DOMAIN, NNOS, NITRIC OXIDE SYNTHASE	PEPTIDE RECOGNITION PEPTIDE RECOGNITION, PROTEIN
Coumpound	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	ADR1; CHAIN: NULL;	COMPLEX(TRANSCRIPTION REGULATION/DNA) TRAMTRACK PROTEIN (TWO ZINC-FINGER PEPTIDE) COMPLEXED WITH 2DRP 3 DNA 2DRP 4	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	NEURONAL NITRIC OXIDE SYNTHASE; CHAIN: A; HEPTAPEPTIDE; CHAIN: B;	NEURONAL NITRIC OXIDE SYNTHASE; CHAIN: A; HEPTAPEPTIDE; CHAIN: B;	PSD-95; CHAIN: A; CRIPT; CHAIN: B;
SEQFOL D score						54.14		52.53
PMF	0.42	0.63	0.29	0.10	0.09		0.84	
Verify score	-0.13	-0.20	0.14	0.03	0.01		0.83	
Psi Blast	5.1e-28	3.4e-15	16-09	6.8e-25	8.5e-21	4.5e-19	4.5e-19	1.5e-14
END	165	167	165	164	691	186	181	170
STAR T AA	6	110	105	13	9/	95	59	48
CHAI N ID	ပ		Ą	4	4	A	V	V
PDB ID	lubd	2adr	2drp	2gli	2gli	1589	1b8q	1be9
SEQ ID NO:	1624	1624	1624	1624	1624	1627	1627	1627

PDB annotation	LOCALIZATION	PEPTIDE RECOGNITION PEPTIDE RECOGNITION, PROTEIN LOCALIZATION	CYTOKINE LCF; CYTOKINE, LYMPHOCYTE CHEMOATTRACTANT FACTOR, PDZ DOMAIN	CYTOKINE LCF; CYTOKINE, LYMPHOCYTE CHEMOATTRACTANT FACTOR, PDZ DOMAIN	KINASE HCASK, GLGF REPEAT, DHR; PDZ DOMAIN, NEUREXIN, SYNDECAN, RECEPTOR CLUSTERING, KINASE	OXIDOREDUCTASE BETA-FINGER	MEMBRANE PROTEIN/OXIDOREDUCTASE BETA- FINGER, HETERODIMER	PEPTIDE RECOGNITION PSD-95; PDZ DOMAIN, NEURONAL NITRIC OXIDE SYNTHASE, NMDA RECEPTOR 2 BINDING	PEPTIDE RECOGNITION PSD-95; PDZ DOMAIN, NEURONAL NITRIC OXIDE SYNTHASE, NMDA RECEPTOR 2 BINDING	HYDROLASE PDZ DOMAIN, HUMAN PHOSPHATASE, HPTP1E, PTP-BAS,
Coumpound		PSD-95; CHAIN: A; CRIPT; CHAIN: B;	INTERLEUKIN 16; CHAIN: NULL;	INTERLEUKIN 16; CHAIN: NULL;	HCÁSK/LIN-2 PROTEIN; CHAIN: A, B;	NEURONAL NITRIC OXIDE SYNTHASE (RESIDUES 1-130); CHAIN: A;	ALPHA-1 SYNTROPHIN (RESIDUES 77-171); CHAIN: A; NEURONAL NITRIC OXIDE SYNTHASE (RESIDUES 1-130); CHAIN: B;	POSTSYNAPTIC DENSITY PROTEIN 95; CHAIN: A;	POSTSYNAPTIC DENSITY PROTEIN 95; CHAIN: A;	TYROSINE PHOSPHATASE (PTP-BAS, TYPE 1); CHAIN: A;
SEQFOL D score			70.34							
PMF score		0.24		92.0	0.98	0.37	0.1	1.00	0.17	9.65
Verify score		0.12		0.39	0.55	0.47	1.02	0.75	0.05	0.30
Psi Blast		1.5e-14	3e-22	3e-22	3e-19	1.2e-20	6e-20	3e-22	1.5e-15	1.7e-17
END		153	191	157	149	176	149	149	143	143
STAR		86	35	19	29	29	67	<i>L</i> 9	82	99
CHAI N ID		¥			V	¥	¥	V	٧	⋖
PDB ID		1be9	1116	1i16	Ikwa	1qau	Iqav "	1qic	Iqíc	3pdz
SEQ ID		1627	1627	1627	1627	1627	1627	1627	1627	1627

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PDB annotation	SPECIFICITY 2 OF BINDING	HYDROLASE PDZ DOMAIN, HUMAN PHOSPHATASE, HPTP1E, PTP-BAS, SPECIFICITY 2 OF BINDING		LIPID TRANSPORT APO A-I; LIPOPROTEIN, LIPID TRANSPORT,	CHOLESTEROL METABOLISM, 2 ATHEROSCLEROSIS, HDL, LCAT-	ACTIVATION	DESIGNED HELICAL BUNDLE DESIGNED HELICAL BUNDLE		RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA	COMPLEX	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA	COMPLEX	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA	COMPLEX	GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA			GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; KRM,	FRUIEIN-KINA COMPLEA, GENE
Coumpound		TYROSINE PHOSPHATASE (PTP-BAS, TYPE 1); CHAIN: A;		APOLIPOPROTEIN A-I; CHAIN: A, B, C, D;			DHP1; CHAIN: NULL;		SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5'-	R(P*GP*UP*UP*GP*UP*UP*	UP*UP*UP*U)- CHAIN: P, Q;	SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5'-	R(P*GP*UP*UP*GP*UP*UP*UP*	UP*UP*UP*U)- CHAIN: P, Q;	SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5'-	R(P*GP*UP*UP*GP*UP*UP*UP*	UP*UP*UP*U)- CHAIN: P, Q;	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	O, P, Q, R, S, T;	POLYDENYLATE BINDING	PROTEIN I; CHAIN: A, B, C, D,	E, r, G, H; MAA (3 -
SEQFOL D score				63.32									74.65														81.71		
PMF score		1.00		į			10.0		0.78								1.00				1.8								
Verify score		0.92					0.12		0.78								0.91				96.0								
Psi Blast		4.5e-22		5.1e-07			0.0043		1.7e-16				1.5e-36				1.5e-36	•••			3.4e-20						1.7e-34		7
END AA		149		258			366		128				331				229				148						237		
STAR T AA		99		53			325		51				88				8				28						02		\int
CHAI N ID		Y		4					¥				∢				∀				¥						¥		
PDB ID		3pdz		lavl			4hb1		167f				167f				1b7f				lcvj						lcvj		
SEQ ID NO:		1627		1628			1628		1629				1629				1629				1629						1629		

PDB annotation	ΛΡ* f, N,	o * X	GENE REGULATION/RNA POLY(A) , D, BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE AP* REGULATION/RNA 4, N,	GENE REGULATION/RNÀ POLY(A) , D, BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE AP* REGULATION/RNA M, N,	GENE REGULATION/RNA POLY(A) , D, BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE AP* REGULATION/RNA M, N,	GENE REGULATION/RNA POLY(A) , D, BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE AP* REGULATION/RNA M, N,	GENE REGULATION/RNA POLY(A)
Соитроии	R(*AP*AP*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)-3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)-3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A},3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)-3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*AP*3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING
SEQFOL D score			75.65		52.68	` 	
PMF score		1.00		1.00		1.00	1.00
Verify score		0.89		0.71		0.41	0.36
Psi Blast		1.7e-34	1e-30	1e-30	1e-33	5.1e-27	1e-33
END		233	218	202	212	202	206
STAR T AA		7.1	0.7	71	70	71	73
CHAI N ID		¥	ឮ	B	[£4	[**	F
PDB ID		lcvj	1cvj	Icvj	lcvj	lcvj	lcvj
S B S		1629	1629	1629	1629	1629	1629

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PDB annotation	BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN; HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONUCLEOPROTEIN	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HINRNF, RBD, RRM, RNF, RNA BINDING, 2
Coumpound	PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5*- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N,	O, F, Q, K, S, I; POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*AP; O, P, O, R, S, T;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, O, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	HNRNP A1; CHAIN: NULL;	HNRNP A1; CHAIN: NULL;
SEQFOL D score		53.52				
PMF score			1.00	0.99	1.00	1.00
Verify score			0.35	0.51	69:0	1.05
Psi Blast		1.4e-31	8.5e-27	1.4e-31	3.4e-25	3.4e-56
END AA		209	202	209	144	229
STAR T AA		70	71	72	52	59
CHAI N ID		H	н	н		
PDB CI		levj	lovj	Icvj	tha1	IhaI
SEQ B SEQ		1629	1629	1629	1629	1629

PDB annotation	RIBONUCLEOPROTEIN	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONUCLEOPROTEIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA. BINDING DOMAIN	OUTER MEMBRANE PROTEIN OSMOPORIN; OUTER MEMBRANE PROTEIN, NON-SPECIFIC PORIN, OSMOPORIN, 2 BETA-BARREL, TRANSMEMBRANE		RIBONUCLEOPROTEIN PTB, PTB- C198, HETEROGENEOUS NUCLEAR POLYPYRIMIDINE TRACT BINDING PROTEIN, RNP, RNA, SPICING, 2 TRANSLATION		
Coumpound		HNRNP A1; CHAIN: NULL;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A;	OMPK36; CHAIN: A, B, C;	OUTER MEMBRANE PROTEIN PHOSPHOPORIN (PHOE) 1PHO 3	POLYPYRIMIDINE TRACT- BINDING PROTEIN; CHAIN: A;	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN 1SXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) 1SXL 4 (NMR, 17 STRUCTURES) 1SXL 5	RNA-BINDING PROTEIN SEX-
SEQFOL D score		167.63							
PMF			1.00	1.00	-0.19	-0.19	0.23	0.60	0.45
Verify score			1.26	1.29	1.27	1.08	0.55	0.66	0.71
Psi Blast		3.4e-56	3.4e-27	1.5e-27	1.5e-11	1.5e-11	6e-17	66-25	1.7e-16
END		230	144	145	329	324	145	150	150
STAR T AA		99	71	. 11	235	241	22	61	62
CHAI N ID			∀	A	¥		Ą		
PDB ID		lha1	1hd1	1bd1	10sm	1pho	1qm9	1sxl	Isxl
SEQ No.			1629	1629	1629	1629	1629	1629	1629

PDB annotation		INTEGRAL MEMBRANE PROTEIN PORIN MATRIX PORIN, OMPF PORIN; 20MF 7 PORIN, MEMBRANE PROTEIN 20MF 12	COMPLEX (RIBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA), HETEROGENEOUS NUCLEAR 2 RIBONUCLEOPROTEIN A1	COMPLEX (RIBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA), HETEROGENEOUS NUCLEAR 2 RIBONUCLEOPROTEIN A1	COMPLEX (RIBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA), HETEROGENEOUS NUCLEAR 2 RIBONUCLEOPROTEIN A1	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3
Coumpound	LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN ISXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) 1SXL 4 (NMR, 17 STRUCTURES) ISXL 5	MATRIX PORIN OUTER MEMBRANE PROTEIN F; 20MF P 5 CHAIN: NULL; 20MF 6 P	HETEROGENEOUS NUCLEAR CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; H	HETEROGENEOUS NUCLEAR CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; H	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; R	SEX-LETHAL; CHAIN: A, B, C; R B R R SI
SEQFOL D score		·			165.44	70.15
PMF		-0.20	1.00	1.00		
Verify score		1.23	1.05	1.18		
Psi Blast		9e-13	1e-28	5.1e-57	5.1e-57	5.1e-36
END		328	144	233	239	229
STAR T AA		237	22	42	49	69
CHAI N ID			⋖	∢	∀	∢
PDB ID		2omf	2up1	2up1	2up1	3sxl
SEQ ID NO:		1629	1629	1629	1629	1629

PDB annotation	DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3 DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	COAGULATION/CRYSTAL STRUCTURE/HEPARIN-B FACTOR IIA; COAGULATION/CRYSTAL STRUCTURE/HEPARIN-BINDING SITE/ 2 HIRUDIN/THROMBIN INHIBITOR	CONTRACTILE PROTEIN MIXED ALPHA-BETA STRUCTURE, ACTIN- BINDING PROTEIN, PROTEIN 2 DOMAIN PACKING, CONTRACTILE PROTEIN	CONTRACTILE PROTEIN MIXED ALPHA-BETA STRUCTURE, ACTIN- BINDING PROTEIN, PROTEIN 2 DOMAIN PACKING, CONTRACTILE PROTEIN	COMPLEX (TWO DNA-BINDING PROTEINS/DNA) MAT ALPHA-2; COMPLEX (TWO DNA-BINDING PROTEINS/DNA), COMPLEX, 2 DNA- BINDING PROTEIN, DNA, TRANSCRIPTION REGULATION
Coumpound		SEX-LETHÁL; CHAIN: A, B, C;	THROMBIN; CHAIN: A,B,C; THROMBIN; CHAIN: D,E,F; HAEMADIN; CHAIN: 1,1,K;	HORSE PLASMA GELSOLIN; CHAIN: A, B	HORSE PLASMA GELSOLIN; CHAIN: A, B	MATING-TYPE PROTEIN A-1; CHAIN: A; MATING-TYPE PROTEIN ALPHA-2; CHAIN: B; DNA; CHAIN: C;
SEQFOL D score					876.96	
PMF score		1.00	0.98	1.00		0.95
Verify score		0.88	0.77	0.81		0.54
Psi Blast		5.1e-36	900:0	0	0	90-99
END AA		229	84	715	715	130
STAR T AA		70	47	S	S	06
CHAI N ID		A	н	⋖	A	٧
PDB ID		3sxl	1e0f	1d0n	1d0n	lakh
SEQ NO:		1629	1635	1637	1637	1641

134 7.5e-06 0.22 0.55 PIT-I; CHAIN: A, B; DNA; PROTEINUDINA) GIFT-I; COMPLEX (DNA-BINDING PROTEIN/DNA) PROTEIN/D	u C	IG COMPLEX VIDNA), U DOMAIN,	OMAIN, INDING	ISL-1HD ; OMAIN	IG VDING BOX, JLATION	IG IDING BOX, JLATION			
Psi Blast Verify score PMF score D score 7.5e-06 0.22 0.55 0.55 1.5e-05 -0.02 0.33 0.49 1.2e-05 0.89 0.98 0.98 9e-06 0.71 0.98 0.69 6e-06 0.33 0.69 0.69 1.3e-06 0.66 0.65 0.78 3e-06 0.46 0.78 0.78	PDB annotati	COMPLEX (DNA-BINDIN PROTEIN/DNA) GHF-1; C (DNA-BINDING PROTEIN PITUITARY, CPHD, 2 PO TRANSCRIPTION FACTO	PROTEIN/DNA HOMEOL DNA, COMPLEX, DNA-B PROTEIN, PROTEIN/DNA	DNA-BINDING PROTEIN DNA-BINDING PROTEIN HOMEODOMAIN, LIM D	COMPLEX (DNA-BINDID PROTEIN/DNA) DNA-BIR PROTEIN, DNA, PAIRED TRANSCRIPTION 2 REGI	COMPLEX (DNA-BINDID PROTEIN/DNA) DNA-BIN PROTEIN, DNA, PAIRED TRANSCRIPTION 2 REGI		DNA-BINDING PROTEIN	
Psi Blast Verify PMF score score score 7.5e-06 0.22 0.55 1.5e-05 -0.02 0.33 1.5e-06 0.17 0.49 1.2e-05 0.89 0.98 9e-06 0.71 0.69 6e-06 0.33 0.69 1.3e-06 0.66 0.62 3e-06 0.46 0.78	Coumpound	PIT-1; CHAIN: A, B; DNA; CHAIN: C, D;	HOMEOBOX PROTEIN HOX-BI; CHAIN: A; PBXI; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	INSULIN GENE ENHANCER PROTEIN ISL-1; CHAIN: NULL;	PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F	PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F	DNA-BINDING PROTEIN OCT-2 POU HOMEODOMAIN (NMR, AYERAGE STRUCTURE) 1HDP 3	OCT-3; 10CP 5 CHAIN: NULL; 10CP 6	DNA BINDING PROTEIN OCT-I POU HOMEODOMAIN DNA- BINDING PROTEIN MUTANT WITH 1POG 3 ARG GLY SER HIS MET INSERTED AT THE N- TERMINUS AND ASP ILE 1POG 4 INSERTED AT THE C- TERMINUS (INS(RGSHM- R6),INS(166-DI) 1POG 5 (NMR,
Psi Blast Verify score 7.5e-06 0.22 0 1.5e-05 -0.02 0 1.5e-05 -0.02 0 1.5e-05 0.17 0 9e-06 0.71 0 1.3e-06 0.66 0 3e-06 0.46 0	SEQFOL D score								
Psi Blast 7.5e-06 (7.5e-05 - 1.5e-05 (1.5e-05 (1.3e-06 (1	PMF score	0.55	0.33	0.49	0.98	0.98	69.0	0.62	0.78
	Verify score	0.22	-0.02	0.17	0.89	0.71	0.33	99.0	0.46
AA AA 134 134 134 134 134 134 134 134 134 134	Psi Blast	7.5e-06	1.5e-05	1.5e-06	1.2e-05	96-06	90-99	1.3e-06	3e-06
	END	134	136	134	134	134	134	134	134
STAR T AA T AA A 22 22 22 22 22 23 83 83 83 83 83 83 83 83 83 83 83 83 83	STAR T AA	92	26	26	92	92	83	92	83
CHAI N ID B B B	CHAI N ID	«	В		¥	æ			
100 100	PDB ID	lau7	1672	16w5	191	191	Ihdp	10cp	lpog
SEQ ID NO: 1641 1641 1641 1641 1641 1641 1641 164	SEQ D NO:	1641	1641	1641	1641	1641	1641	1641	1641

PDB annotation																								•				
Coumpound	13 STRUCTURES) IPOG 6	HYDROLASE(CARBOXYLIC ESTERASE) LIPASE (E.C.3.1.1.3) COMPLEXED WITH COLIPASE	AND INHIBITED 1LPB 3 BY UNDECANE PHOSPHONATE	METHYL ESTER (TWO CONFORMATIONS) 1LPB 4	HYDROLASE(CARBOXYLIC	ESTERASE) LIPASE (E.C.3.1.1.3)	COMPLEXED WITH COLIPASE	AND INFIBITED ILEB 3 BI	METHYL ESTER (TWO	CONFORMATIONS) 1LPB 4	HYDROLASE(CARBOXYLIC	ESTERASE) LIPASE (E.C.3.1.1.3)	COMPLEXED WITH COLIPASE	AND INHIBITED 1LPB 3 BY	UNDECANE PHOSPHONATE	METHYL ESTER (TWO	CONFORMATIONS) 1LPB 4	LIPASE PROTEIN COFACTOR	PORCINE PANCREATIC	PROCOLIPASE B 1PCN 3 (NMR,	MINIMIZED AVERAGE	STRUCTURE) IPCN 4	LIPASE PROTEIN COFACTOR	PORCINE PANCREATIC	PROCOLIPASE B 1PCN 3 (NMR,	MINIMIZED AVERAGE	STRUCTURE) IPCN 4	LIPASE PROTEIN COFACTOR
SEQFOL D score											50.95						i											56.60
PMF score		0.81			0.88													1.00					1.00					
Verify score		-0.36			-0.35													-0.36					-0.36					
Psi Blast		8e-19			3e-20						3e-20							3.2e-20					6e-22					6e-22
END AA		64			92						99							69					69					69
STAR T AA		29			29						. 80							29					29					2
CHAI N ID		Ą			∀						Ą																	
PDB ID		11pb			11pb						IIpb							Ipcn					Ipcn					1pcn
SEQ D C		1653			1653						1653							1653					1653					1653

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PDB annotation		COMPLEX (TRANSFERASE/PEPTIDE) COMPLEX (TRANSFERASE/PEPTIDE)	V-SRC SH2 DOMAIN SRC SH2; V-SRC SH2 DOMAIN, PHOSPHOTYROSINE RECOGNITION DOMAIN, PP60 2 SRC SH2 DOMAIN	PHOSPHORYLATION SIGNAL TRANSDUCTION, TYROSINE KINASE, TRANSFERASE, 2 PHOSPHOTRANSFERASE, PHOSPHORYLATION	SIGNALING PROTEIN/TRANSFERASE NAK; COMPLEX, SIGNAL TRANSDUCTION, PHOSPHOTYROSINE BINDING 2 DOMAIN (PTB), ASYMMETRIC CELL DIVISION	PHOSPHOTRANSFERASE C-SRC, P60-SRC; SRC, TYROSINE KINASE, PHOSPHORYLATION, SH2, SH3, 2 PHOSPHOTYROSINE, PROTO- ONCOGENE, PHOSPHOTRANSFERASE	
Coumpound	PORCINE PANCREATIC PROCOLIPASE B IPCN 3 (NMR, MINIMIZED AVERAGE STRUCTURE) IPCN 4	C-SRC TYROSINE KINASE; CHAIN: A, B; ACE-FORMYL PHOSPHOTYR-GLU-(N,N- DIPENTYL AMINE); CHAIN: C, D:	PP60 V-SRC TYROSINE KINASE TRANSFORMING PROTEIN; CHAIN: NULL;	P55 BLK PROTEIN TYROSINE KINASE; CHAIN: NULL;	NUMB PROTEIN; CHAIN: A; NUMB ASSOCIATE KINASE; CHAIN: B;	TYROSINE-PROTEIN KINASE SRC; CHAIN: NULL;	PHOSPHOTRANSFERASE V- SRC TYROSINE KINASE
SEQFOL D score							
PMF score		0.03	0.06	0.11	0.95	0.01	0.04
Verify score		-0.10	-0.06	-0.37	0.08	-0.32	-0.17
Psi Blast		3.2e-28	3.2e-29	3.2e-27	3e-17	3.2e-44	9.6e-29
END AA		66	102	<u>6</u>	247	165	99
STAR T AA	,	_	-	1	120	-	
CHAI N ID		<			∢		A
PDB UD		1809	1bkf	161	1ddm	1fmk	1sha
SEQ ID NO:		1654	1654	1654	1654	1654	1654

PDB annotation		COMPLEX (SIGNAL TRANSDUCTIONPEPTIDE) COMPLEX (SIGNAL TRANSDUCTIONPEPTIDE), PHOSPHOTYROSINE 2 BINDING DOMAIN (PTB)	CELL CYCLE/GENE REGULATION COMPLEX, SIGNAL TRANSDUCTION, PHOSPHOTYROSINE BINDING 2 DOMAIN (PTB), ASYMETR IC CELL DIVISION, CELL CYCLE/GENE 3 REGULATION	CELL CYCLE/GENE REGULATION COMPLEX, SIGNAL TRANSDUCTION, PHOSPHOTYROSINE BINDING 2 DOMAIN (PTB), ASYMETR IC CELL DIVISION, CELL CYCLE/GENE 3 REGULATION	CELL CYCLE/GENE REGULATION COMPLEX, SIGNAL TRANSDUCTION, PHOSPHOTYROSINE BINDING 2 DOMAIN (PTB), ASYMETR IC CELL DIVISION, CELL CYCLE/GENE 3
Coumpound	TRANSFORMING PROTEIN (PHOSPHOTYROSINE 1SHA 3 RECOGNITION DOMAIN SH2) (E.C.2.7.1.112) COMPLEX WITH 1SHA 4 PHOSPHOPEPTIDE A (TYR-VAL-PRO-MET-LEU, PHOSPHORYLATED TYR) 1SHA 5	SHC; CHAIN: A; TRKA RECEPTOR PHOSPHOPEPTIDE; CHAIN: B;	NUMB PROTEIN; CHAIN: A; GPPY PEPTIDE; CHAIN: B;	NUMB PROTEIN; CHAIN: A; GPPY PEPTIDE; CHAIN: B;	NUMB PROTEIN; CHAIN: A; GPPY PEPTIDE; CHAIN: B;
SEQFOL D score				51.48	
PMF score		0.10	0.93		0.98
Verify score		0.17	0.21		0.34
Psi Blast		0.00075	9e-24	96-24	0.00032
END		247	247	248	260
STAR T AA		110	108	108	110
CHAI N ID		∢	∢	∢	∢
PDB ID		1shc	2nmb	2nmb	2nmb
SEQ NO:		1654	1654	1654	1654

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PDB annotation	REGULATION	TRANSLATION INITIATION FACTOR SUII; TRANSLATION INITIATION FACTOR	TRANSLATION INITIATION FACTOR SUII; TRANSLATION INITIATION FACTOR	HEXAMERIZATION DOMAIN HEXAMERIZATION DOMAIN, ATPASE, TRANSPORT	CHAPERONE AAA-ATPASE, CLPY, ATP-DEPENDENT PROTEOLYSIS	PHOSPHOTRANSFERASE C-SRC, P60-SRC; SRC, TYROSINE KINASE,	PHOSPHORYLATION, SH2, SH3, 2	PHOSPHOTYROSINE, PROTO-	PHOSPHOTRANSFERASE	COMPLEX (SIGNAL	IRANSDOCTION/FEFTIDE) COMPLEX (SIGNAL	TRANSDUCTION/PEPTIDE), SH3 DOMAIN					
Coumpound		EIF1; CHAIN: NULL;	EIFI; CHAIN: NULL;	N-ETHYLMALEIMIDE- SENSITIVE FUSION PROTEIN; CHAIN: A;	HEAT SHOCK PROTEIN HSLU; CHAIN: A;	TYROSINE-PROTEIN KINASE SRC: CHAIN: NULL:	•			GRB2; CHAIN: A; SOS-1;	Chain; B;		SIGNAL TRANSDUCTION PROTEIN GROWTH FACTOR	RECEPTOR-BOUND PROTEIN 2 (GRB2 N-TERMINAL, IGBR 3	SH3 DOMAIN) COMPLEXED	(NMR, 29 STRUCTURES) 1GBR	5
SEQFOL D score		141.21															
PMF score			1.00	0.36	0.13	0.45				0.17			0.59				
Verify			0.42	-0.15	-0.14	-0.13				60.0			0.09				
Psi Blast		1.6e-44	1.6e-44	1.6e-11	1.3e-17	4.8e-22				9.6e-15			1.6e-15				
END AA		149	149	257	260	426		,		386			392				
STAR T AA		29	42	981	140	334				335			335				
CHAI N ID				¥	٧			_		¥	_		Ą				
PDB TD		2ifi	2ifl	1d2n	1g41	1fmk				1gbq			1gbr				
SEQ SO B		1658	1658	1660	1660	1663				1663			1663				

PDB annotation		SIGNAL TRANSDUCTION ADAPTOR SH2, SH3 1GR1 14	COMPLEX (KINASE/PEPTIDE)	TYROSINE KINASE TYROSINE KINASE-INHIBITOR COMPLEX, DOWN-REGULATED KINASE, 2 ORDERED ACTIVATION LOOP	SIGNAL TRANSDUCTION PROTEIN SRC-HOMOLOGY 3 (SH3) DOMAIN, PEPTIDE-BINDING PROTEIN, 1SEM 18 2 GUANINE NUCLEOTIDE EXCHANGE FACTOR 1SEM 19	TRANSFERASE TRANSFERASE, TYROSINE KINASE, SH3, SH2, ONCOPROTEIN	TRANSPORT PROTEIN SERINE-RICH RNA POLYMERASE I SUPPRESSOR PROTEIN; ARM REPEAT	STRUCTURAL PROTEIN ARMADILLO REPEAT, BETA-
Coumpound	ADAPTOR PROTEIN CONTAINING SH2 AND SH3 GROWTH FACTOR RECEPTOR- BOUND PROTEIN 2 (GRB2) IGFC 3 (C-TERMINAL SH3 DOMAIN) (NMR, MINIMIZED MEAN STRUCTURE) IGFC 4	GROWTH FACTOR BOUND PROTEIN 2; 1GRI 5 CHAIN: A, B; 1GRI 6	P56—LCK— TYROSINE KINASE; ILCK 7 CHAIN: A; ILCK 8 TAIL PHOSPHOPEPTIDE TEGQ(PHOSPHO)YQPQPA; ILCK 14 CHAIN: B; ILCK 15	HAEMATOPOETIC CELL KINASE (HCK); CHAIN: A;	SEM-5; ISEM 3 CHAIN: A, B; ISEM 5 10-RESIDUE PROLINE- RICH PEPTIDE FROM MSOS ISEM 8 CHAIN: C, D ISEM 10	ABL TYROSINE KINASE; CHAIN: NULL;	KARYOPHERIN ALPHA; CHAIN: A, B; MYC PROTO- ONCOGENE PROTEIN; CHAIN: C, D, E, F;	BETA-CATENIN; CHAIN: NULL;
SEQFOL D score								
PMF score	0.83	0.35	0.28	60.0	0.96	-0.06	0.41	0.10
Verify score	0.40	-0.64	0.30	0.20	0.43	0.03	60.0	0.02
Psi Blast	6.4e-15	6.4e-16	1.4e-18	1.6e-21	1.6e-16	4.8e-16	30-05	7.5e-10
END	389	389	425	426	389	426	416	530
STAR T AA	333	304	334	333	330	327	36	201
CHAI N ID		A	¥	4	¥		¥	
PDB ID	1gfc	igi i	Ilck	lqcf	lsem	2abi	lee4	2bct
SEQ NO:	1663	1663	1663	1663	1663	1663	1669	1669

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PDB annotation	CATENIN, STRUCTURAL PROTEIN	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RJ-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN
Coumpound		RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	UZ RNA HAIRPIN IV; CHAIN: Q, R; UZ A'; CHAIN: A, C; UZ B"; CHAIN: B, D;	UZ RNA HAIRPIN IV; CHAIN: Q, R; UZ A'; CHAIN: A, C; UZ B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;
SEQFOL D score							,	
PMF score		0.27	1.00	0.40	0.74	0.37	0.34	0.82
Verify		0.16	0.54	0.10	0.36	0.41	-0.03	0.28
Psi Blast		6.4e-12	1.5e-37	1.5e-19	9.6e-07	1e-23	1.5e-22	9e-20
END		362	314	301	131	171	230	301
STAR T AA		27	29	126	27	30	53	126
CHAI N ID		K	V	4	¥	4	Y	ပ
PDB ID		1a4y	1a4y	la9n	1a9n	la9n	la9n	1a9n
SEQ NO:		1671	1671	1671	1671	1671	1671	1671

PDB annotation	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP,RIBONUCLEOPROTEIN	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH
Coumpound	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	UZ RNA HAIRPIN IV; CHAIN: Q, R; UZ A'; CHAIN: A, C; UZ B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;
SEQFOL D score										
PMF score	09'0	0.00	0.95	0.84	0.01	0.57	0.94	0.93	1.00	-0.19
Verify score	0.50	0.13	0.24	0.40	0.44	0.16	0.70	0.18	0.31	0.04
Psi Blast	4.5e-24	0.00064	9e-18	9.6e-07	96-24	6e-23	1.6e-23	1.6e-21	6e-14	8e-21
END AA	299	342	334	131	174	240	290	381	106	521
STAR T AA	171	216	220	27	30	53	138	173	29	360
CHAI N ID	၁	၁	၁	၁	2	၁	Ą	A	¥	A
PDB CI	1a9n	la9n	1a9n	la9n	la9n	la9n	9051	140b	1406	1d0b
SEQ No.	1671	1671	1671	1671	1291	1291	1291	1671	1671	1671

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PDB annotation	REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCTUM BINDING, CELL ADHESION	TRANSFERASE CRYSTAL STRUCTURE, RAB	GERANYLGEKANYLIKANSFERASE, 2.0 A 2 RESOLUTION, N-	FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT		TRANSFERASE CRYSTAL	STRUCTURE, RAB GERANYI GERANYI TRANSFERA SE	2.0 A 2 RESOLUTION, N-	FORMYLMETHIONINE, ALPHA	SUBUNIT, BETA SUBUNIT	TRANSFERASE CRYSTAL	STRUCTURE, RAB	GEKAN I LGEKAN I LI KANSFEKASE, 20 A 2 RESOLITION N-	FORMYLMETHIONINE, ALPHA	SUBUNIT, BETA SUBUNIT		TRANSFERASE CRYSTAL	STRUCTURE, RAB GEBANNI GEBANNI TRANSEEPASE	20 A 2 RESOLUTION N.	FORMYLMETHIONINE, ALPHA
Coumpound	•	INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;	RAB GERANYLGERANYLTRANSFE	KASE ALPHA SUBUNIT; CHAIN: A, C; RAB	GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN:	B, D;	RAB	GERANYLGERANYLTRANSFE RASE AT PHA STRIMIT:	CHAIN: A. C. RAB	GERANYLGERANYLTRANSFE	RASE BETA SUBUNIT; CHAIN: B, D;	RAB	GERANYLGERANYLTRANSFE	KASE ALFHA SUBUNII;	GERANYLGERANYLTRANSFE	RASE BETA SUBUNIT; CHAIN:	B, D;	RAB	GERANYLGERANYLTRANSFE	CHAN: A C. RAB	GERANYLGERANYLTRANSFE
SEQFOL D score																						
PMF score		1.00	1.00	1.00				0.36					1.00						0.89			
Verify score		0.74	0.61	0.49				0.18					99.0						89.0			
Psi Blast		1.3e-27	8e-28	4.8e-14				3.2e-06				,	4.8e-10						4.8e-12			
END		961	242	250				107					130						154			
STAR T AA		43	70	145				1					27						48			
CHAI N ID		¥	ď	Ą				A					Ą						Ą			
PDB CI		140b	140b	1dce				1dce					1dce						1dce			
SEQ NO:		1671		1671				1671					1671						1671			

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PDB annotation	SUBUNIT, BETA SUBUNIT	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHLAMYDOMONAS, FLAGELLA	SIGNALING PROTEIN PHOTORECEPTOR, G PROTEIN- COUPLED RECEPTOR, MEMBRANE PROTEIN, 2 RETINAL PROTEIN, VISUAL PIGMENT	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	RNA BINDING PROTEIN TAP (NFXI); RIBONUCLEOPROTEIN (RNP, RBD OR RRM) AND LEUCINE-RICH-
Coumpound	RASE BETA SUBUNIT; CHAIN: B, D;	OUTER ARM DYNEIN; CHAIN: A;	OUTER ARM DYNEIN; CHAIN: A;	OUTER ARM DYNEIN; CHAIN: A;	OUTER ARM DYNEIN; CHAIN: A;	OUTER ARM DYNEIN; CHAIN: A;	RHODOPSIN; CHAIN: A, B	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;	NUCLEAR RNA EXPORT FACTOR 1; CHAIN: A, B;
SEQFOL D score			•						
PMF score		0.11	69:0	0.01	0.64	0.52	0.05	0.72	0.22
Verify score		-0.03	-0.14	-0.32	0.03	0.09	-0.04	0.27	-0.08
Psi Blast		1.6e-13	1.4e-21	6.4e-10	1.6e-12	3.2e-16	1.5e-14	8e-05	1.1e-05
END		289	299	380	148	195	702	83	107
STAR T AA		154	165	201	27	59	403	27	45
CHAI N ID		¥	¥	V	¥	¥	В	∢	¥
PDB TD		1ds9	1ds9	6sp1	1ds9	1ds9	1f88	Ifo!	lfo1
SEQ No.		1671	1671	1671	1671	1671	1671	1671	1671

PDB annotation	REPEAT 2 (LRR)	RNA BINDING PROTEIN TAP (NFX1); RIBONUCLEOPROTEIN (RNP,RBD OR RRM) AND LEUCINE-RICH- REPEAT 2 (LRR)	TRANSCRIPTION RNAIP; RANGAP; GTPASE-ACTIVATING PROTEIN FOR SPII, GTPASE-ACTIVATING PROTEIN PROTEIN, GAP, RNAIP, RANGAP, LRK, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, 3 MEROHEDRAL TWINNING, 3 MEROHEDRAL	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	SKP2, F-BOX, SKP1, SKP1, SKP1, SKP2, SKP2, F-BOX, LRR, LEUCINE-RICH REPEAT, SCF, UBIQUITIN, 2 E3, UBIQUITIN PROTEIN LIGASE	D LIGASE SKP2 F-BOX; SKP1; SKP1, SKP2, F-BOX, LRR, LEUCINE-RICH RFPFAT SCF IRIGIITIN 2 F3
Coumpound		NUCLEAR RÑA EXPORT FACTOR 1; CHAIN: A, B;	GTPASE-ACTIVATING PROTEIN RNA1_SCHPO; CHAIN: A, B;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	CYCLIN A/CDK2-ASSOCIATED P19; CHAIN: A, C; CYCLIN A/CDK2-ASSOCIATED P45; CHAIN: B, D;	CYCLIN A/CDK2-ASSOCIATED P19; CHAIN: A, C; CYCLIN A/CDK2-ASSOCIATED P45-
SEQFOL D score								
PMF score		0.90	0.25	99.0	0.21	1.00	0.34	0.59
Verify score		0.32	-0.01	0.41	0.19	0.33	-0.85	-0.62
Psi Blast		1.1e-05	1.5e-16	6e-50	1.4e-16	3e-31	1.6e-08	1.3e-08
END AA		107	154	314	424	334	129	129
STAR T AA		45	59	23	30	66	06	92
CHAI N ID		В	4				¥.	¥
PDB ID		1f01	lyrg	2bnh	2bnh	2bnh	1fs1	IfsI
SEQ ID NO:		1671	1671	1671	1671	1671	1673	1673

PDB annotation	UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2- ASSOCIATED P45; CYCLIN A/CDK2- ASSOCIATED P19; SKP1, SKP2, F- BOX, LRRS, LEUCINE-RICH REPEATS, SCF, 2 UBIQUITIN, E3, UBIQUITIN PROTEIN LIGASE	TRANSFERASE ALLOSTERY, COOPERATIVITY, GLYCEROL KINASE, CRYSTAL 2 STRUCTURE, TRANSFERASE	TRANSFERASE ALLOSTERY, COOPERATIVITY, GLYCEROL KINASE, CRYSTAL 2 STRUCTURE, TRANSFERASE	ANTIFUNGAL PROTEIN OSMOTIN- LIKE PROTEIN; ANTIFUNGAL PROTEIN, PATHOGENESIS- RELATED PROTEIN, PR-5D, 2 OSMOTIN, THAUMATIN-LIKE PROTEIN	HYDROLASE INHIBITOR ALL-BETA STRUCTURE, HYDROLASE INHIBITOR	HYDROLASE INHIBITOR ALL-BETA STRUCTURE, HYDROLASE INHIBITOR	HYDROLASE INHIBITOR ALL-BETA STRUCTURE, HYDROLASE INHIBITOR	HYDROLASE INHIBITOR ALL-BETA STRUCTURE, HYDROLASE
Coumpound	CHAIN: B, D;	SKP2; CHAIN: A, C; SKP1; CHAIN: B, D;	GLYCEROL KINASE; CHAIN: O, Y, Z, X;	GLYCEROL KINASE; CHAIN: 0, Y, Z, X;	PR-5D; CHAIN: NULL;	BOWMAN-BIRK TRYPSIN INHIBITOR; CHAIN: A	BOWMAN-BIRK TRYPSIN INHIBITOR; CHAIN: A	BOWMAN-BIRK TRYPSIN INHIBITOR; CHAIN: A	BOWMAN-BIRK TRYPSIN INHIBITOR; CHAIN: A
SEQFOL D score				310.87	52.19				
PMF score		0.28	1.00			60:0	0.00	-0.14	-0.18
Verify score		-0.51	0.56			-0.16	1.29	1.60	0.79
Psi Blast		6.4e-09	0	0	0.009	4.5e-17	6e-16	6e-15	3e-19
END		162	491	492	191	201	162	118	197
STAR T AA		06	18	18	-	134	42	4	84
CHAI N ID		4	o	0		¥	۷_	4	Ą
EDB CI		1fs2	1bu6	1bu6	laun	1c2a	1c2a	1c2a	1c2a
SEQ ID		1673	1675	1675	1676	1676	1676	1676	1676

PDB annotation	INHIBITOR	PLANT PROTEIN TWO HOMOLOGOUS HEVEIN-LIKE DOMAINS	PLANT PROTEIN TWO HOMOLOGOUS HEVEIN-LIKE DOMAINS	PLANT PROTEIN TWO HOMOLOGOUS HEVEIN-LIKE DOMAINS	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN, SACCHARIDE BINDING	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN, SACCHARIDE BINDING	SUGAR BINDING PROTEIN UDA;
Coumpound		AGGLUTININ ISOLECTIN VI; CHAIN: A	AGGLUTININ ISOLECTIN VI; CHAIN: A	AGGLUTININ ISOLECTIN VI; CHAIN: A	AGGLUTININ ISOLECTIN VI/AGGLUTININ ISOLECTIN V; CHAIN: A;	AGGLUTININ ISOLECTIN VI/AGGLUTININ ISOLECTIN V; CHAIN: A;	AGGLUTININ ISOLECTIN VI/AGGLUTININ ISOLECTIN V; CHAIN: A;	AGGLUTININ ISOLECTIN VI/AGGLUTININ ISOLECTIN V; CHAIN: A;	AGGLUTININ ISOLECTIN VI/AGGLUTININ ISOLECTIN V; CHAIN: A;	AGGLUTININ ISOLECTIN VAGGLUTININ ISOLECTIN V/ CHAIN: A;	AGGLUTININ ISOLECTIN 1/AGGLUTININ ISOLECTIN V/ CHAIN: A;	AGGLUTININ ISOLECTIN
SEQFOL D score												
PMF score		0.01	-0.14	-0.12	-0.18	-0.12	0.15	-0.14	-0.17	-0.14	-0.12	0.15
Verify score		0.87	1.43	1.28	1.17	0.05	1.32	1.70	1.37	0.98	1.34	1.29
Psi Blast		1.26-17	1.2e-19	3e-18	1.5e-18	1.3e-14	7.5e-18	1.5e-19	3e-18	le-18	3e-1 <i>7</i>	1.le-16
END AA		192	100	172	116	192	98	142	172	192	106	86
STAR T AA		104	10	84	10	124	æ	64	11	104	10	3
CHAI N ID		∢	4	∢	A	Ą	¥	V	V	¥	¥	A
PDB ID		lehd	lehd	1ehd	leis	leis	leis	leis	leis	len2	len2	len2
SEQ NO.		1676	1676	1676	1676	1676	1676	1676	9/91	1676	1676	1676

PDB annotation	LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN, SACCHARIDE BINDING	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN, SACCHARIDE BINDING	SIGNALLING PROTEIN BINDING PROTEIN, CYTOKINE, SIGNALLING PROTEIN	SIGNALLING PROTEIN BINDING PROTEIN, CYTOKINE, SIGNALLING PROTEIN	HORMONE RECEPTOR HORMONE RECEPTOR, INSULIN RECEPTOR PAMILY	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	SIGNALLING PROTEIN TYPE I RECEPTOR, STNFRI; INCF 8 BINDING PROTEIN, CYTOKINE INCF 19	OUTER MEMBRANE PROTEIN OSMOPORIN; OUTER MEMBRANE PROTEIN, NON-SPECIFIC PORIN, OSMOPORIN, 2 BETA-BARREL, TRANSMEMBRANE	COMPLEX (BLÖOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM-
Coumpound	LAGGLUTININ ISOLECTIN V/ CHAIN: A;	AGGLUTININ ISOLECTIN I/AGGLUTININ ISOLECTIN V/ CHAIN: A;	TUMOR NECROSIS FACTOR RECEPTOR; CHAIN: A, B;	TUMOR NECROSIS FACTOR RECEPTOR; CHAIN: A, B;	INSULIN-LIKE GROWTH FACTOR RECEPTOR 1; CHAIN: A;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	TUMOR NECROSIS FACTOR RECEPTOR; INCF 4 CHAIN: A, B; INCF 5	OMPK36, CHAIN: A, B, C,	FACTOR IXA; CHAIN: C, L,; D- PHE-PRO-ARG; CHAIN: I;
SEQFOL D score			59.75					84.67	50.00		
PMF score		0.01		-0.19	-0.20	0.05	-0.15			-0.20	-0.20
Verify score		1.54		0.74	0.85	1.09	1.39			1.57	0.33
Psi Blast		3e-18	3e-15	3e-15	6e-25	3e-25	6e-24	3e-25	16-11	4.5e-14	4.5e-19
END AA		172	199	261	200	199	159	160	200	138	201
STAR T AA		74	47	49	10	35	3	4	46	8	42
CHAI N ID		Ą	∢	4	∢				¥	4	J
PDB ID		len2	lext	1ext	ligr	Iklo	1klo	Iklo	Incf	losm	1рбх
SEQ NO:		1676	1676	1676	1676	1676	1676	9/91	1676	1676	1676

		XT.	TETA.	, in .	NO	~	-			12C	_			Ę	 감.		~				SE		~				SE			
otation	ASE, 3	MEMBRANE ADHESION SHORT	CONSENSUS REPEAT, SUSHI,	2 N-GLYCOSYLATION, MULTI-	DOMAIN, MEMBRANE ADHESION		i ČĶ	1AL	יבור איר איר די המים דו	INHIBITOR, 1 SEKINE PROTEASE INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR	TOR;	TAL	OR XA	INHIBITOR, 2 SEKINE PROTEASE	BOSIS	INHIBITO	TOR;	TAL.	OR XA	IE PROTE/	BOSIS	NHIBITO	TOR;	TAL	OR XA	INHIBITOR, 2 SERINE PROTEASE	BOSIS		
PDB annotation	HYDROL. OTEIN	NE ADHE	US REPEA	OSYLATIC	MEMBRA	COLEASE	A INHIBI	SIN, CKYS	AE, FACI	S, Z SEKIN S, THROM	ROTEASE	SA INHIBI	IN, CRYS	RE, FACTO	X, Z SEKIN	S, IHKOM	COTEASE	S NHB	IN, CRYS	RE, FACT	R, 2 SERIN	4, JHROM	COTEASE	S NHB	IN, CRYS	RE, FACT	S, 2 SERIN	Y, THROIM		
	BINDING, HYDROLASE, 3 GLYCOPROTEIN	MEMBRAI	CONSENSUS REPEAT, SUSHI,	2 N-GLYC	DOMAIN,	SERINE PROTEASE INHIBITION	FACTOR XA INHIBITOR;	ANIISIASIN, CRYSIAL	SIRUCIO	INHIBITOR, THROMBOSIS	SERINE PF	FACTOR XA INHIBITOR;	ANTISTASIN, CRYSTAL	STRUCTURE, FACTOR XA		INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR	FACTOR XA INHIBITOR;	ANTISTASIN, CRYSTAL	STRUCTURE, FACTOR XA	INHIBITOR, 2 SERINE PROTEASE	INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR	FACTOR XA INHIBITOR;	ANTISTASIN, CRYSTAL	STRUCTURE, FACTOR XA		INTIBITION, THROMBOSIS		
			IN: A;			ULL;					ULL;						ULL;						ULL;				·			17
Coumpound		2-	IN I; CHA			CHAIN: N					CHAIN: N						CHAIN: N						CHAIN: N					OTT DE	ROI EIN EMBRANE	ROTEI
Cou		HUMAN BETA2-	GLYCOPROTEIN I; CHAIN: A;			ANTISTASIN; CHAIN: NULL;					ANTISTASIN; CHAIN: NULL;					1 40	ANTISTASIN; CHAIN: NULL;						ANTISTASIN; CHAIN: NULL;					ACA COD ANTE DO CATEDA	MEMBRANE PROTEIN VITELLINE MEMBRANE	OUTER LAYER PROTEIN I
ļ 		HEIN	GLY			ANI					ANT			_	_		A I						ANT					É	VIII	TO TO
SEQFOL D score					1																		60.99							
PMF		-0.20				-0.15					0.29						-0.12											000	02:0-	
Verify score		0.83				0.92					1.27					0,7	0.53											1 20	06.1	
Psi Blast		1.4e-30				6e-15					1.le-15					;	6e-21						6e-21					1 60 14	1.3e-14	
END		200				168					175					1	198						202					107	<u> </u>	
STAR T AA		3				13					74					5	83						8						-	
CHAI N ID		Ą																											₹	
PDB ID		1qub				Iskz					1skz	-			_		Iskz						1skz	_				1	OIIIA	
SEQ ID NO.		1676				1676					1676					,,,,	1676						1676					3631	0/01	
											75	54											-							

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PDB annotation			OXIDOREDUCTASE ALPHA-BETA- ALPHA MOTIF, FLAVIN CONTAINING PROTEIN, OXIDASE	FLAVOENZYME FLAVOENZYME, NAD BIOSYNTHESIS, FAD, OXIDOREDUCTASE	OXIDOREDUCTASE ADR, NADPH:	AUKENODOKIN OXIDOREDUCTASE;	FLAVOENZYME, MAD ANALYSIS, ELECTRON TRANSFERASE	OXIDOREDUCTASE TETRAHEME	FLAVOCYTOCHROME C	FUMARATE REDUCTASE, 2	OXIDOREDUCTASE	OXIDOREDUCTASE IRON-SULFUR	FLA VOPROTEIN, ELECTRON	TRANSFER, OXIDOREDUCTASE	OXIDOREDUCTASE IRON-SULFUR	FLAVOPROTEIN, ELECTRON	OXIDOREDICTASE I POAMDE	DEHYDROGENASE I PROTEIN ES	DLDH. DIHYDROLIPOAMIDE	DEHYDROGENASE, MULTIENZYME	COMPLEX 2 PROTEIN, PYRUVATE	DEHYDROGENASE COMPLEX,	GLYCINE 3 DECARBOXYLASE COMPLEX, FLAVOPROTEIN
Coumpound	1VMO 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	D-AMINO ACID OXIDASE; CHAIN: A;	L-ASPARTATE OXIDASE; CHAIN: A;	ADRENODOXIN REDUCTASE;	CHAIN: A;		FLAVOCYTOCHROME C	FUMARATE REDUCTASE;	CHAIN: A;		TRIMETHYLAMINE	DEHYDROGENASE; CHAIN: A,	B;	TRIMETHYLAMINE	DEHYDROGENASE; CHAIN: A,	DIHVDROI TEOAMIDE	DEHYDROGENASE: CHAIN: A	B. C. D.				
SEQFOL D score		101.83			62.05																		
PMF score			0.19	0.13			•	0.36				0.12			0.70		000	3					
Verify score			-0.46	-0.05				-0.03				-0.09			-0.08		-0.41	:					
Psi Blast		4.5e-23	0.00048	0.00014	3.2e-37			3.2e-09				1.6e-12			9e-13		0.003	2					
END AA		189	39	94	457			318				182			359		118	:					
STAR T AA		8	11	7	10			142				2					2	1					
CHAI N ID		٧	٧	∢	Ą			¥				¥			∢		Į	•					
PDB UD		вам6	1сОр	1chu	lcjc			144d				1djn			Idjn		1dx1						
SEQ NO:		1676	1680	1680	1680			1680				1680			1680		1680						

PDB CHAI STAR END Psi Blast Verify PMF SEQFOL	PDB annotation	OXIDOREDUCTASE LIPOAMIDE DEHYDROGENASE, L PROTEIN, E3, DLDH, DIHYDROLIPOAMIDE DEHYDROGENASE, MULTIENZYME COMPLEX 2 PROTEIN, PYRUVATE DEHYDROGENASE COMPLEX, GLYCINE 3 DECARBOXYLASE COMPLEX, FLAVOPROTEIN	COMPLEX (OXIDOREDUCTASE/TRANSFERASE) E3BD; REDOX-ACTIVE CENTER, GLYCOLYSIS, OXIDOREDUCTASE	OXIDOREDUCTASE FLAVOENZYME, OXIDASE, ENANTIOMERIC SPECIFICITY, O- 2 AMINOBENZOATE, ACTIVE SITE FUNNEL, HELICAL DOMAIN, FAD- 3 BINDING DOMAIN			OXIDOREDUCTASE REDOX-ACTIVE CENTER, OXIDOREDUCTASE, FLAVOPROTEIN, FAD, NADP	OXIDOREDUCTASE REDOX-ACTIVE CENTER, OXIDOREDUCTASE,
PDB CHAI STAR END Psi Blast Verify PMF	Coumpound	DIHYDROLIPOAMIDE DEHYDROGENASE; CHAIN: A, B, C, D;	DIHYDROLIPOAMIDE DEHYDROGENASE; CHAIN: A, B; DIHYDROLIPOAMIDE ACETYLTRANSFERASE; CHAIN: C;	L-AMINO ACID OXIDASE; CHAIN: A, B, C, D, E, F, G, H;	ELECTRON TRANSPORT(FLAVOCYTOCHR OME) FLAVOCYTOCHROME C SULFIDE DEHYDROGENASE (FCSD) 1FCD 3	ELECTRON TRANSPORT(FLAVOCYTOCHR OME) FLAVOCYTOCHROME C SULFIDE DEHYDROGENASE (FCSD) 1FCD 3	TRYPANOTHIONE REDUCTASE; CHAIN: A, B;	TRYPANOTHIONE REDUCTASE; CHAIN: A, B;
PDB	SEQFOL D score					83.15		
PDB CHAI STAR END Psi Blast Idx A 8 462 3.26-94 -1	PMF score	0.39	69.0	0.04	0.22		0.51	-0.01
PDB CHAI STAR END ID NID TAA AA AA Idx A 8 462 184 462 185 A 6 49 16d A 10 407 16d A 9 394 16c A 2 118 7 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 8 459 16c A 16c A 8 459 16c A 16c A 8 459 16c A 16c A 16c A 8 459 16c A 16c	Verify score	-0.07	-0.04	-0.50	0.10		0.11	0.00
PDB CHAI STAR ID	Psi Blast	3.26-94	1.6e-95	1.6e-07	1.6e-19	1.6e-19	7.5e-05	1.6e-74
16c A		462	462	49	407	394	118	459
100 100 1160 1160 1160 1160 1160 1160 1	STAR T AA	&	14	9	10	6	7	∞
	CHAI N ID	∢	∀	∢	∢	A	¥	4
SEQ ID NO: 1680 1680 1680 1680 1680 1680 1680 1680	PDB 13	וקאן	1ebd	1f8s	1fcd	1fcd	1fec	Ifec
	SEQ NO.	1680	1680	1680	1680	1680	1680	1680

PDB annotation	FLAVOPROTEIN, FAD, NADP	FLAVIN FLAVIN, PHENOL HYDROXYLASE, MONOOXYGENASE, OXIDOREDUCTASE	OXIDOREDUCTASE COMPLEX II; COMPLEX II; COMPLEX II; COMPLEX II; FUMARATE REDUCTASE, COMPLEX II, SUCCINATE DEHYDROGENASE, 2	RESPIRATION, OXIDOREDUCTASE	OXIDOREDUCTASE COMPLEX II; COMPLEX II; COMPLEX II; COMPLEX II; FUMARATE REDUCTASE, COMPLEX II,	SUCCINATE DEHYDROGENASE, 2 RESPIRATION, OXIDOREDUCTASE					
Coumpound		PHENOL HYDROXYLASE; CHAIN: A, B, C, D;	FUMARATE REDUCTASE FLAVOPROTEIN SUBUNIT; CHAIN: A, M; FUMARATE REDUCTASE IRON-SULFUR PROTEIN; CHAIN: B, N;	FUMARATE REDUCTASE 15 KD HYDROPHOBIC PROTEIN; CHAIN: C, O; FUMARATE REDUCTASE 13 KD HYDROPHOBIC PROTEIN; CHAIN: D B.	FUMARATE REDUCTASE FLAVOPROTEIN SUBUNIT; CHAIN: A, M; FUMARATE REDUCTASE IRON-SULFUR	PROTEIN; CHAIN: B, N; FUMARATE REDUCTASE 15 KD HYDROPHOBIC PROTEIN; CHAIN: C, O: FUMARATE	REDUCTÁSE 13 KD HYDROPHOBIC PROTEIN; CHAIN: D, P;	OXIDOREDUCTASE DIHYDROLIPOAMIDE	COMPLEX WITH 1LPF 3 FI AVINA DENINE.	DINUCLEOTIDE (FAD) 1LPF 4	OXIDOREDUCTASE
SEQFOL D score											
PMF score		0.05	0.37		0.05			0.15			0.04
Verify score		-0.79	-0.74		-0.56			-0.25			-0.14
Psi Blast		0.00032	3.2e-06		0.00032			3.2e-95		,	3.2e-75
END		43	43		391			462			462
STAR T AA		12	12		310			∞			13
CHAI N ID		₹	4		∢			V	_		
PDB UI		1foh	1fum		1fum			11pf			llvi
SEQ NO:		1680	1680		1680			1680			1680

PDB annotation		·	OXIDOREDUCTASE REDOX-ACTIVE CENTER, GLYCOLYSIS, OXIDOREDUCTASE, NAD, 2 FLAVOPROTEIN, FAD, P64K	OXIDOREDUCTASE OXIDOREDUCTASE, OXIDOREDUCTASE, NAD	OXIDOREDUCTASE OXIDOREDUCTASE		TRANSCRPTION INHIBITOR BETA-PROPELLER	TRANSCRIPTION INHIBITOR BETA- PROPELLER	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT;
Coumpound	DIHYDROLIPOAMIDE DEHYDROGENASE (E.C.1.8.1.4) COMPLEX WITH 1LVL 3 NICOTINAMIDE-ADENINE- DINUCLEOTIDE (NAD+) 1LVL 4	OXIDOREDUCTASE (HZO2(A)) NADH PEROXIDASE (NPX) (E.C.1.11.1.1) MUTANT WITH CYS 42 INHP 3 REPLACED BY ALA (C42A) INHP 4	SURFACE PROTEIN; CHAIN: NULL;	L-ALANINE DEHYDROGENASE; CHAIN: A;	FLAVOCYTOCHROME C3 FUMARATE REDUCTASE; CHAIN: A, D;	OXIDOREDUCTASE DIHYDROLIPOAMIDE DEHYDROGENASE (E.C.1.8.1.4) 3LAD 3	TRANSCRIPTIONAL REPRESSOR TUPI; CHAIN: A, B, C.	TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A, B, C;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA;
SEQFOL D score		76.88							
PMF			0.22	0.11	0.06	0.35	10.0	0.99	-0.14
Verify score			-0.06	0.02	-0.43	-0.06	0.25	0.56	0.43
Psi Blast		1.6e-57	6.4e-88	0.0048	6.4e-05	3.2e-91	1.6e-61	3.2e-72	1.4e-55
END		418	463	177	49	462	479	624	476
STAR T AA		12	9	145	4	82	173	304	155
CHAI N ID				¥	A	Ą	4	4	В
PDB ID		dųu1	lojt	1pjc	1908	3lad	lerj	lerj	1got
SEQ No.		1680	1680	1680	1680	1680	1681	1681	1681

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PDB annotation	GAMMA1, TRANSDUCIN GAMMA SUBUNIT, COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP-BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT, COMPLEX (GTP-BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	OUTER MEMBRANE PROTEIN OSMOPORIN; OUTER MEMBRANE PROTEIN, NON-SPECIFIC PORIN, OSMOPORIN, 2 BETA-BARREL, TRANSMEMBRANE	OUTER MEMBRANE PROTEIN OSMOPORIN; OUTER MEMBRANE PROTEIN, NON-SPECIFIC PORIN, OSMOPORIN, 2 BETA-BARREL, TRANSMEMBRANE	
Coumpound	CHAIN: G;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	GT-ALPHA/GI-ÁLPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	OMPK36; CHAIN: A, B, C;	OMPK36; CHAIN: A, B, C;	OUTER MEMBRANE PROTEIN PHOSPHOPORIN (PHOE) 1PHO 3
SEQFOL D score		74.60				
PMF			0.71	-0.20	-0.18	-0.20
Verify score	i		0.76	0.86	1:1	0.90
Psi Blast		1.46-55	3.2e-74	4.5e-10	1.5e-12	1.2e-11
END AA		524	621	79	81	80
STAR T AA		179	302	S	8	4
CHAI N ID		В	В	<	A	
PDB ID		1got	1got	losm	losm	1pho
SEQ ID NO:		1681.	1681	1685	1685	1685

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PDB annotation	INTEGRAL MEMBRANE PROTEIN PORIN MATRIX PORIN, OMPF PORIN; 20MF 7 PORIN, MEMBRANE PROTEIN 20MF 12	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 22 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN		CHAPERONIN THERMOPLASMA ACIDOPHILUM, GROUP II CHAPERONIN, CCT, TRIC, 2 PROTEIN FOLDING, ATPASE	CHAPERONIN THERMOPLASMA ACIDOPHILUM, GROUP II CHAPERONIN, CCT, TRIC, 2 PROTEIN FOLDING, ATPASE	CHAPERONIN HSP60 CLASS, ATP, MAGNESIUM, CHAPERONIN	TRANSFERASE PYRUVATE KINASE, GLYCOLYTIC ENZYME, HOMOTETRAMER, 2 TRANSFERASE		COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING
Соптроинд	MATRIX PORIN OUTER MEMBRANE PROTEIN F; 20MF 5 CHAIN: NULL; 20MF 6	ALPHA SPECTRIN; CHAIN: A, B, C;	HYDROLASE CYTIDINE DEAMINASE (CDA) (E.C.3.5.4.5) COMPLEXED WITH ICTT 3 3,4- DIHYDROZEBULARINE (DHZ) ICTT 4	THERMOSOME; CHAIN: A, B;	THERMOSOME; CHAIN: A, B;	GROEL; CHAIN: A, B, C, D, E, F, G, H, I, J, K, L, M, N;	PYRUVATE KINASE; CHAIN: A, B, C, D, E, F, H, G;		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING
SEQFOL D score									
PMF	-0.19	0.04	0.22	1.00	1.00	0.72	0.23		-0.19
Verify score	1.14	-0.05	-0.02	-0.12	-0.29	-0.14	-0.18		0.06
Psi Blast	1.3e-10	0.00015	9.6c-27	8e-55	6.4e-51	1.6e-68	0.0008		1.4e-09
END AA	08	210	124	186	981	186	901		114
STAR T AA	8	86	14	15	20	12	ر د		33
CHAI N ID		∢		V V	m	∢	< −		¥
PDB CI	2omf	Icun	, left	1a6d	1a6d	1der	1pkl		laih
SEQ 19 No.	1685	1688	1690	1692	1692	1692	1692		9691

PDB annotation	PROTEIN	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING	PROTEIN	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	COMPLEX (TRANSCRIPTION	REGIT ATTON/DNA) TFIIIA: 5S	GENE; NMR, TFIIIA, PROTEIN, DNA,	TRANSCRIPTION FACTOR, 5S RNA 2	GENE, DNA BINDING PROTEIN,	ZINC FINGER, COMPLEX 3	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC2	FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX
Coumpound	SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX O1.1GONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	PROTEN; CHAIN: C, F, G;	DNA: CHAIN: A. B. D. E.	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		TRANSCRIPTION FACTOR HIA:	CHAIN: A: 58 RNA GENE:	CHAIN: E, F;						YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;	
SEQFOL D score																										
PMF score		-0.14	į	-0.18		-0.17				-0.12				-0 10	\ ;							-0.14				
Verify score		0.07		0.07		0.10				0.16				80.0	3							0.04				
Psi Blast		6.4e-27		3.2e-19		8e-35				1.1e-09				1 40-13	!							3.2e-28				
END AA		168		114		142	!			114				138								168				
STAR T AA		8		31		19				87				69	<u> </u>							63				
CEAI N ID		4		၁		O				g				4								ပ				
PDB UD		laIh		Imey		Imev	`			lmey				<u>‡</u>								1ubd				
SEQ EQ		9691		9691		9691				1696				1696								1696				

I S	STAR T AA	END	Psi Blast	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
								(TRANSCRIPTION REGULATION/DNA)
7		144	4.8e-17	0.03	-0.11		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
80		115	6.4e-13	0.03	0.94		U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA,
43		140	66-11	-0.34	0.00		U2 RNA HAIRPIN IV; CHAIN: Q. R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	SNRNP, RIBONUCLEOPROTEIN COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP RIRONI ICI FOPROTEIN
18	<u> </u>	115	6.4c-13.	0.29	0.96		UZ RNA HAIRPIN IV; CHAIN: Q, R, UZ A'; CHAIN: A, C, UZ B"; CHAIN: B, D;	COMPLEX (NUCLEAR PROTEIN/RNA) COMPLEX (NUCLEAR PROTEIN/RNA), RNA, SNRNP, RIBONUCLEOPROTEIN
18	Γ	140	1.4e-28	0.51	1.00		INTERNALIN B; CHAIN: A;	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION
4	<u> </u>	114	3.26-15	0.68	1.00		RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT; CHAIN: A, C; RAB GERANYLGERANYLTRANSFE RASE BETA SUBUNIT; CHAIN: B, D;	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N- FORMYLMETHIONINE, ALPHA SUBUNIT, BETA SUBUNIT
39		137	3.2e-17	0.22	1.00		RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT; CHAIN: A, C; RAB GERANYLGERANYLTRANSFE	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N- FORMYLMETHIONINE, ALPHA

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PDB annotation	SUBUNIT, BETA SUBUNIT	CONTRACTILE PROTEIN LEUCINE- RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHI AMYDOMONAS, FLAGELLA	TRANSCRIPTION RNÁ IP; RANGAP; GIPASE-ACTIVATING PROTEIN FOR SPII, GTPASE-ACTIVATING PROTEIN, GAP, RNA IP, RANGAP,	LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, 3 MEROHEDRAL TWINNING, MEROHEDRY	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	ENDOCYTOSIS/EXOCYTOSIS SUPERHELIX OF HELICES	ENDOCYTOSIS/EXOCYTOSIS SUPERHELIX OF HELICES	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING REGULATION, RNP DOMAIN, RNA	EX	RNA-BINDING PROTEIN/RNA TRA	REGULATION, RNP DOMAIN, RNA	GENE REGULATION/RNA POLY(A)
	SUBUN	CYLINI CHLAN	TRANS GTPASI FOR SP PROTEI	LRR, LEUCINI PROTEIN, TW HEMIHEDRAL MEROHEDRA MEROHEDRA	ACETY RIBONI INHIBI LEUCIN	SUPER	ENDOC SUPERI	RNA-RI	PRE-MI	COMPLEX	RNA-BI	REGUL	GENE REG
Coumpound	RASE BETA SUBUNIT; CHAIN:	B, D; OUTER ARM DYNEIN; CHAIN: A;	GTPASE-ACTIVATING PROTEIN RNA1_SCHPO; CHAIN: A, B;		RIBONUCLEASE INHIBITOR; CHAIN: NULL;	TARGET OF MYB1; CHAIN: A, B;	TARGET OF MYB1; CHAIN: A, B;	SXI-I ETHAI PROTEIN: CHAIN:	A, B; RNA (5'- R(P*GP*UP*UP*UP*UP*	UP*UP*UP*UP*U)- CHAIN: P, Q;	SXL-LETHAL PROTEIN; CHAIN:	R(P*GP*UP*UP*GP*UP*UP*	POLYDENYLATE BINDING
SEQFOL D score												_	
PMF		0.24	0.21		0.49	00.1	1.00	90 0-			1.00		-0.15
Verify score		-0.55	-0.36		0.06	0.84	0.78	60.0			0.96		0.05
Psi Blast		8e-23	3e-09		9.6e-10	1.4e-44	1.2e-56	1.46-22			6.4e-30		3.2e-31
END		142	133		139	141	143	268			481		307.
STAR T AA		25	23		1	2	2	126			328		128
CHAI		Ą	Ą			4	Ą	∀			∀		A
BOA ID		1ds9	Іутв		2bnb	lelk	Ielk	1b7f			167f		1cvj
SEQ ID	ÿ.	1698	1698		8691	1699	1699	1700			1700		1700

PDB annotation		BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA		GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA		VANA TOU LINGINGS IN TOUR WAND	GENE REGULATION KINA FULT(A)	BINDING PROTEIN I, PABP I; KRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA			GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA	-		GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA			GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA	
Coumpound		PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3.); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	0, P, Q, K, S, 1;	POLYDENYLAIE BINDING	PROTEIN I; CHAIN: A, B, C, D,	E, F, G, H; KNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	O, P, Q, R, S, T;	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	O, P, Q, R, S, T;	POLYDENYLATE BINDING	PROTEIN I; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	O, P, Q, R, S, T;	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C; D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-37; CHAIN: M, N,
SEQFOL	ים ארמוני																				,												<u>'</u>
PMF	3000				0.93					5	3.						1.00						1.00						1.00				
Verify	3008				69.0					90	1.28						0.99						. 86.0						1.29				
Psi Blast					4.8e-19					1 5.00	4.56-28						4.8e-25						4.5e-24	-					4.8e-24				
END	{				411					,00,	460						487						468						473				
STAR	44				310					;	15.						331						331						331				
CHAI	1				٧						∢		_	_			∢						Д						Д				
PDB	}				lcvj]:	Icy]						lcvj						lcvj						lcyj	_			
SEQ	ÿ				1700		_				 } }						1700						1700		_				1700				

PDB annotation		GENE REGULATION/RNA POLY(A)	BINDING PROTEIN I, PABP 1; RRM,	PROTEIN-KNA COMPLEX, GENE	REGULATION/RNA		GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA		GENE REGILI ATION/BNA POLVIA)	PAIDAG PROTERT PART 1. PRM	DECTETAL DAY COMPLEY CENE	DECILIATION CONTENTA	AEGOLA I LOIWAINA			RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA-	BINDING DOMAIN	RNA BINDING PROTEIN RNA-	BINDING DOMAIN	RIBONUCLEOPROTEIN UIA117;	RIBONUCLEOPROTEIN, RNP	DOMAIN, SPLICEOSOME	STRUCTURAL PROTEIN PROTEIN	C23; RNP, RBD, RRM, RNA BINDING	DOMAIN, NUCLEOLUS	NUCLEAR PROTEIN	HETEROGENEOUS NUCLEAR RIBONIOI FORBOTTEN A1
Coumpound	OPORST	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; KNA (5-	R(*AP*AP*AP*AP*AP*AP*	AF*AF*AF*A)-3'J; CHAIN: M, N, O, P. O. R. S. T:	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	POI VDENVI ATE BINDING	DOCTEM 1. CUANT. A D. C. D.	FROIDING I, CHAIN: A, D, C, D,	D/# A D# A D# A D# A D# A D# A D#	K. Ar. Ar. Ar. Ar. Ar.	AP*AP*AP-3'); CHAIN: M, N,	O, P, Q, K, S, T;	HU ANTIGEN C; CHAIN: A;	HU ANTIGEN C; CHAIN: A;		HU ANTIGEN C; CHAIN: A;		UI SMALL NUCLEAR	RIBONUCLEOPROTEIN A;	CHAIN: NULL;	NUCLEOLIN RBD2; CHAIN: A;			HNRNP AI; CHAIN: NULL;	
SEQFOL D score																										1					
PMF score		9.64					0.07					100	3						0.71	0.83		0.00		0.58			0.37			-0.17	
Verify score		0.46					0.27					0.72	;						0.30	0.93		0.55		0.71			0.82			0.26	
Psi Blast		4.8e-25					6.4e-26					36-21	i .						3.2e-22	1.6e-17		3.2e-16		3e-17			1.5e-16			4.8e-31	
END		216					233					461	: -						208	409		500		417			412			301	
STAR T AA		128					128					331	;						126	327		127		323			321]	126	
CEA1 N ID		F					H					I	;						4	4		∢					٨				
PDB TD		Icvj					1cvj					levi.	:			_			148z	1d8z		1d9a		1fht			ofJ1			1ha1	
SEQ	Ö	1700					1700					1700	3						1700	1700		1700		1700			.1700			1700	

PDB annotation	NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONUCLEOPROTEIN	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONICLEOPROTEIN	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONUCL FOPEN	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN		
Coumpound		HNRNP A1; CHAIN: NULL;	HNRNP A1; CHAIN: NULL;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A;	RIBONUCLEOPROTEIN PROTEIN FROM UI SMALL NUCLEAR RIBONUCLEOPROTEIN (SNRNP UI) INRC 3 (N-TERMINAL FRAGMENT, RESIDUES 1 - 95) MUTANT WITH GLN 85 INRC 4 REPLACED BY CYS (Q85C) INRC 5	RIBONUCLEOPROTEIN PROTEIN FROM UI SMALL NUCLEAR RIBONUCLEOPROTEIN (SNRNP
SEQFOL D score							
PMF score		-0.19	66.0	0.77	0.98	0.49	0.43
Verify score		0.17	0.78	0.82	0.86	-0.09	-0.19
Psi Blast		1.6e-20	1.4e-34	4.8e-23	1.3e-20	1.6e-12	1.3e-12
END		405	481	506	399	209	207
STAR T AA		226	325	127	331	127	127
CEAI				4	∢	A	æ
PDB ID		lha l	lha1	1hd1	1hd1	Inrc	Inro
SEQ EQ		1700	1700	1700	1700	1700	1700

PDB annotation		RIBONUCLEOPROTEIN PTB, PTB- C198, HETEROGENEOUS NUCLEAR POLYPYRIMIDINE TRACT BINDING PROTEIN, RNP, RNA, SPICING, 2 TRANSLATION		COMPLEX (RIBONUCLEOPROTEIN/RNA)	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	NUCLEAR PROTEIN UI SNRNP A PROTEIN; RNA BINDING DOMAIN,
Conmpound	UI) INRC 3 (N-TERMINAL FRAGMENT, RESIDUES 1 - 95) MUTANT WITH GLN 85 INRC 4 REPLACED BY CYS (Q85C) INRC 5	POLYPYRIMIDINE TRACT- BINDING PROTEIN; CHAIN: A;	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN 1SXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) 1SXL 4 (NMR, 17 STRUCTURES) 1SXL 5	UIA SPLICEOSOMAL PROTEIN; IURN S CHAIN: A, B, C; IURN 6 RNA 21MER HAIRPIN (5'- (AP*AP*UP*CP*CP*AP*UP*UP* IURN 11 CHAIN: P, Q, R IURN	MUSASHII; CHAIN: A;	SEX-LETHAL PROTEIN; CHAIN: NULL;	SEX-LETHAL PROTEIN; CHAIN: NULL;	UI SMALL NUCLEAR RIBONUCLEOPROTEIN A;
SEQFOL D score			·					
PMF score		-0.14	0.33	0.99	0.10	0.11	0.84	0.96
Verify score		0.25	0.06	0.71	0.59	0.47	0.82	09:0
Psi Blast		4.8e-09	1.46-15	6e-16	3.2e-18	1.3e-20	1.16-17	4.5e-16
END AA		217	211	406	206	210	411	406
STAR T AA		128	126	323	127	. 126	328	322
CHAI N ID		¥		V	A			
PDB ID		14m9	Isxl	lum	2mss	2sxl	2sxl	2ula
SEQ ID NO:		1700	1700	1700	1700	1700	1700	1700

_		~				_								_	_					
NUCLEAR PROTEIN	RNA-BINDING PROTEIN SPLICING, U2 SNRNP, RBD, RNA-BINDING PROTEIN	COMPLEX (RIBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA), HETEROGENEOUS NUCLEAR 2	KIBONUCLEOPROTEIN AI	COMPLEX (RUBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX	(RIBONUCLEOPROTEIN/DNA), HETEROGENEOUS NUCLEAR 2	RIBONUCLEOPROTEIN A1	COMPLEX (RIBONUCLEOPROTEIN/DNA)	HNRNP A1, UPI; COMPLEX	(RIBONUCLEOPROTEIN/DNA),	HE JENOGENEOUS NUCLEAR 2 RIBONUCLEOPROTEIN A1	RNA BINDING DOMAIN RNA	BINDING DOMAIN, RBD, RNA	RECOGNITION MOTIF, RRM, 2	SPLICING INHIBITOR,	TRANSLATIONAL INHIBITOR, SEX 3	DETERMINATION, X CHROMOSOME	DOSAGE COMPENSATION	ANTI-ONCOGENE CELL CYCLE	ANTI-ONCOGENE, REPEAT, ANK REPEAT	COMPLEX (TRANSCRIPTION
CHAIN: NULL;	SPLICING FACTOR U2AF 65 KD SUBUNIT; CHAIN: A;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B;	HETEROGENEON IS NOT BAB	HEI EKUGENEUUS NUCLEAK RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE	SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B;		HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1;	CHAIN: A; 12-NUCLEOTIDE	SINGLE-STRANDED	I ELUME I MIC DINA; CHAIN: B;	SEX-LETHAL; CHAIN: A, B, C;							TUMOR SUPPRESSOR	P16INK4A; CHAIN: NULL;	GA BINDING PROTEIN ALPHA;
																		67.76		
	0.05	-0.19	0.14	4 .79			0.87				1.00									1.00
	0.53	0.01	0.35	65.0			0.49				1.01									0.92
	9.6e-13	1.1e-34	4 80-22	4.06-22			1.3e-35				3.2e-29							4.5e-30		3e-45
	206	311	410	2			4 4 4 4 4				474							191		298
	127	126	276	37			325				329				_	_		35		145
	Ą	∢		€			∢				∢									В
	2u2f	2up1	Jun 1	ides			2up1				3sxl							1a5e		lawc
	1700	1700	1700	3			1700				1700							1701		1701
	CHAIN: NULL;	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR UZAF 65 KD SUBUNIT; CHAIN: A;	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR UZAF 65 KD 2up1 A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD 2upl A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; TELOMETRIC DNA; CHAIN: B;	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR UZAF 65 KD 2up1 A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED 2up1 A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR RIBONUCLEOR A1; CHAIN: B; CHAIN: A; 12-NUCLEOR A1; CHAIN: A1; C	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR UZAF 65 KD 2upl A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED 2upl A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR RIBONUCLEOR OTEIN A1; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED 2upl A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR RIBONUCLEOR OTEIN A1; CHAIN: B; CHAIN	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR UZAF 65 KD 2upl A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED 2upl A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR RIBONUCLEOROTEIN A1; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B;	Zu2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD Zup1 A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHA	Zu2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD Zup1 A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; Zup1 A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; Zup1 A 325 484 1.3e-35 0.49 0.87 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE	Zu2f A 127 206 9.6e-13 0.05 SPLICING FACTOR U2AF 65 KD Zup1 A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR Zup1 A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR Zup1 A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR RBONUCLEOPROTEIN A1; CHAMIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; Zup1 A 325 484 1.3e-35 0.49 0.87 HETEROGENEOUS NUCLEAR RBONUCLEOPROTEIN A1; CHAMIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; RBONUCLEOPROTEIN A1; CHAMIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B;	Zu2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD Zup1 A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; Zup1 A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; Zup1 A 325 484 1.3e-35 0.49 0.87 HETEROGENEOUS NUCLEOR Zup1 A 325 484 1.3e-35 0.49 0.87 HETEROGENEOUS NUCLEOR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE CHAIN: A; 12-NUCLEOTIDE RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE RIS	Zu2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD Zup1 A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: CHAIN: B; CHAIN: B; CHAIN: CHAIN: B; CHAIN: B; CHAIN: CHAIN: B; CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: CHAIN: B; CHAIN: CHAIN: CHAIN: B; CHAIN: CHAIN: CHAIN: B; CHAIN: CHAIN: CHAIN: CHAIN: B; CHAIN: CHAIN: CHAIN: B; CHAIN: CHAIN: CHAIN: B; CHAIN: CHAIN	Zuzf A 127 206 9.6e-13 0.53 0.05 SPLICING PACTOR U2AF 65 KD Zupl A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A!; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED Zupl A 226 410 4.8e-22 0.35 -0.14 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A!; CHAIN: B; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED Zupl A 325 484 1.3e-35 0.49 0.87 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN AI; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DINA; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DINA; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DINA; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DINA; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DINA; CHAIN: B; RIBONUCLEOPROTEIN AI; CHAIN: A; B; C; RIBONUCLEOPROTEIN AI; CHAIN: A; B; C; RIBONUCLEOPROTEIN AI; CHAIN: A; B; C; RIBONUCLEOPROTEIN AI; CHAIN: A; B; C; RIBONUCLEOPROTEIN AI; CHAIN: A; B; C; RIBONUCLEOPROTEIN AI; CHAIN: A; RIBONUCLEOPROTEIN AI; CHAIN: A; RIBONUCLEOPROTEIN AI; CHAIN: A; RIBONUCLEOPROTEIN AI; RIBONUCLEOPROTEIN AI; RIBONUCLEOPROTEIN AI; RIBONUCLEOPROTEIN AI; RIBONUCLEOPROTEIN AI; RIB	Zuzf A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD Zupl A 126 311 1.1e-34 0.01 -0.19 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHA	Zuzf A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD Zupl A 126 311 1.1e-34 0.01 -0.19 HETEROGENBOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: B; CHAIN: CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN: CHAIN: B; CHAIN:	2u2f A 127 206 9.66-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING FACTOR U2AF 65 KD	2u2f A 127 206 9.6e-13 0.53 0.05 SPLICING PACTOR UZAF 65 KD

PDB annotation	REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS. TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX
Coumpound	CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA I; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B;
SEQFOL D score					90.41
PMF score		1.00	1.00	1.00	
Verify score		0.94	06:0	1.11	
Psi Blast		1.1e-40	36-39	1.6e-3 <i>7</i>	3e-45
END		298	165	165	363
STAR T AA		150	15	17	212
CHAI N ID		Д	æ	а	В
PDB ID		Iawc	Тамс	lawc	lawc
SEQ ID		1701	1701	1701	1701

	NG, AIN,	A; NG, AIN,	A.Y.	A. A. A. A. A. A. A. A. A. I.N.,	NG,
lon	(TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATIONDNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION · REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING,
PDB annotation	(TRANSCRIPTION REGULATION/DNA), DNA-B 2 NUCLEAR PROTEIN, ETS I ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPAL GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BI 2 NUCLEAR PROTEIN, ETS D ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATIONDNA) GABPAI GABPBETAI; COMPLEX (TRANSCRIPTION · REGULATIONIDNA), DNA-BI 2 NUCLEAR PROTEIN, ETS D ANKYRIN REPEATS,	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPAL GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BI 2 NUCLEAR PROTEIN, ETS D ANKYRIN REPEATS,	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPAI GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA); DNA-BI
PDB	(TRANSCRIPTION REGULATIONDNA) 2 NUCLEAR PROTEI ANKYRIN REPEATS TRANSCRIPTION 3 I	COMPLEX (TRANSC REGULATIONDNA) GABPBETAI; COMPI (TRANSCRIPTION REGULATIONDNA), 2 NUCLEAR PROTEI ANKYRIN REPEATS,	COMPLEX (TRANSC REGULATION/DNA) GABPBETAI; COMPI (TRANSCRIPTION · REGULATION/DNA), 2 NUCLEAR PROTEI ANK YRIN REPEATS, TRANSCRIPTION 3 F	COMPLEX (TRANSC REGULATION/DNA) GABPBETAI; COMPI (TRANSCRIPTION REGULATION/DNA), 2 NUCLEAR PROTEIN ANKYRIN REPEATS, TRANSCRIPTION 3 F	COMPLEX (TRAN REGULATION/DN GABPBETAI; CON (TRANSCRIPTION REGULATION/DN
	(TRAN) REGUL 2 NUCI ANKYI TRANS	COMPI REGUI GABPB (TRAN REGUI 2 NUCI ANKYT	COMPI REGUI GABPB (TRAN) REGUI 2 NUCI ANKYF	COMPI REGUI GABPB (TRAN) REGUI 2 NUCI ANKYF	COMPI REGUL GABPB (TRAN
		LPHA; i: B;	LPHA; i: B;	LPHA; i. B;	LPHA; i: B;
punoc	ដ	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA I; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPF CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BÎNDÎNG PROTÊÎN ALPHA; CHAIN: A; GA BÎNDÎNG PROTÊÎN BÊTA 1; CHAÎN: B; DÎNA; CHAÎN: D, E;	OTEIN A NDING I; CHAIN E;
Coumpound	IAIN: D,	OING PRO A; GA BI N BETA I IAIN: D,	A; CA BI A; CA BI A BETA I IAIN: D,	OING PRO A; GA BI V BETA 1 IAIN: D,	JING PRO A; GA BI V BETA 1 IAIN: D,
	DNA; CHAIN: D, B;	GA BINDING PROTEIN ALPH CHAIN: A; GA BINDING PROTEIN BETA I; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BÎNDÎNG PROTEÎN ALPH CHAÎN: A; GA BÎNDÎNG PROTÊÎN BETA 1; CHAÎN: B; DNA; CHAÎN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;
SEQFOL D score					
<u> </u>					
PMR score		00.1	1.00	1:00	1.00
Verify score		0.64	0.25	1.07	0.46
Psi Blast		1,2e-41	3.2e-32	16-32	6e-39
		2.	3.2	<u>-91</u>	\$
END		395	427	405	199
STAR T AA		212	250	278	45
CEAI N ID		B	В	æ	В
PDB ID		lawc	lawc	lawc	lawc
SEQ ID NO:		170]	1701	1701	1701

	r								·	,	
PDB annotation	2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX	(LKANSCKETTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR,
Coumpound		GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B;	DNA; CDAIN; D, E;	PI9INKAD CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19NK4D CDK4/6 NHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;
SEQFOL D score					87.58						
PMF score		1.00		1.00		1.00	1.00	0.77	1.00	1.00	1.00
Verify score		0.72		0.42		0.85	0.81	0.39	0.67	0.44	0.80
Psi Blast		4.8e-37	·	3e-37	1.4e-38	7.5e-38	1.5e-37	1.4e-38	4.5e-30	1.4e-36	1.4e-38
END		661	···	299	301	168	333	397	405	201	234
STAR T AA		20		113	145	17	183	215	279	46	82
CHAI N ID		æ						•		<u> </u>	
PDB ID		lawc	•	1bd8	1bd8	1bd8	1bd8	1bd8	15d8	1bd8	1bd8
SEQ ID NO:		1701		1701	1701	1701	1701	1701	1701	1701	1701

PDB annotation	ANKYRIN MOTIF	COMPLEX (INHIBITOR PROTEINKINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIA-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INTIBITOR	FROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL,	ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEINIVINGES) INFIGURACE	PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL,	ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR	PROTEIN/KINASE) INHIBITOR	PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL.	ALPHA/BETA, COMPLEX	(INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR	PROTEIN, CYCLIN-DEPENDENT
Coumpound		CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B:	ī	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B:		CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN:	B;		CYCLIN-DEPENDENT KINASE	B;			CYCLIN-DEPENDENT KINASE	6; CHAIN: A; P19INK4D; CHAIN:	В;			CYCLIN-DEPENDENT KINASE	B;
SEQFOL D score				80.38				_											
PMF score		1.00				1.00			1.00				1.00					1.00	
Verify score		0.72				0.92			0.48				0.43					0.32	
Psi Blast		9e-38		1.5e-39		1.5e-39			1.4e-38				3e-39					9e-38	
END		271		170		170			338				401					202	
STAR T AA		114		12		13			183				215					46	
CHAI N ID		æ		В		а			В			i	В					&	
PDB ID		1blx		1blx		Iblx			. xlqı				1blx					1blx	
SEQ NO:		1701		1701		1701			10/1				1201					1701	

				,					
PDB annotation	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18- INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKBNFKB COMPLEX
Coumpound		CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	NF.KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA-
SEQFOL D score			92.05				89.22		
PMF score		0.25		1.00	1.00	0.93		0.35	1.00
Verify score		0.24		0.60	0.80	0.43		0.19	0.71
Psi Blast		3.2e-30	1.3e-35	3e-37	1.5e-36	1.4e-29	9e-38	1.2e-53	1.5e-39
END AA		432	177	237	401	431	236	371	173
STAR T AA		253	6	104	269	253	81	145	17
CHAI N ID		¥	¥	V	Ą	¥	¥	D	Q
PDB ID	_	15u9	1bu9	149s	s6P1	<u> </u>	11,06	likn	likn
SEQ ID NO:		1701	1701	1701	1701	1701	1701	1701	1701

PDB annotation		TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65;	IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX		TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX		TRANSCRIPTION FACTOR P65;	P50D; TRANSCRIPTION FACTOR,	IKB/NFKB COMPLEX		ANK-REPEAT MYOTROPHIN,	ACETYLATION, NMR, ANK-REPEAT	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANK YKIN 2 KEPEAT HELIX	COMPLEX (TRANSCRIPTION REG/ANK REPEAT) COMPLEX
Coumpound	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A: NF.K APPA.R P50D	SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA: CHAIN: D:	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA-B-A-B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA-	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA-	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT;	CHAIN: A; NF-KAPPA-B P50D	SUBUNIT; CHAIN: C; I-KAPPA-	B-ALPHA; CHAIN: D;	MYOTROPHIN; CHAIN: NULL		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	ŗ,		NF-KAPPA-B P65; CHAIN: A, C; NF-KAPPA-B P50; CHAIN: B, D;
SEQFOL D score													81.35															
PMF		0.92		0.99		1.00			1.00								0.99				0.71		1.00					0.99
Verify score		0.05		0.49		0.11			0.13								0.28				0.26		0.58					0.10
Psi Blast		1.1e-38		3e-50		4.8e-43			4.5e-52				4.5e-52				4.5e-52				1.5e-30		9e-51					3e-49
END AA		427		403		232			240				253				276				391		311					401
STAR T AA		212		215		45			45				45				82				247		113			_		143
CHAI N ID		o.		Ω		Д			Ω				a				Q						Ξ					<u>ы</u>
PDB ID		1ika		likn		1ikn			likn				likn				1ikn				Imyo		Infi					Infi
SEQ No.		1701		1701		1701			1701				1701				1701				1701		1701					1701

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PDB annotation	(TRANSCRETION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX (TRANSCRIPTION)	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	(TE O/AIN) KEFEA I) COMPLEA	(IRANSCRIPTION	REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	TRANSCRIPTION REGULATION	TRANSCRIPTION REGULATION,	ANKYRIN REPEATS, CELL-CYCLE	TRANSCRIPTION REGULATION	TRANSCRIPTION REGULATION,	ANKYRIN REPEATS, CELL-CYCLE
Coumpound	J-KAPPA-B-ALPHA; CHAIN: E, F;	NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D; I-KAPPA-R-AI.PHA: CHAIN: E.	T.		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B F30; CHAIN: B, U;	I-NAFFA-b-ALFDA; CHAIN: E,	F.	NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	Ľ.		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	<u>.</u>		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	œ.		REGULATORY PROTEIN SWI6;	CHAIN: A, B;		REGULATORY PROTEIN SWIG,	CHAIN: A, B;	
SEQFOL D score										87.55								_										70.20		
PMF score		1.00				0.70									1.00					1.00					0.28					
Verify score		0.94				0.42									0.50					0.59					-0.06					
Psi Blast		4.5e-39				1.1e-38				1.5e-51					1.5e-51					6.4e-43					4.5e-36			4.5e-36		
END		170				427				242					238					232					287			320		
STAR T AA		17				210				42					43					4					19			9/		
CHAI N ID		E				В				B					Ξ					ш					Ą			¥		
PDB TD		lnfi				Infi				Infi					1nfi					Infi					1sw6			1sw6		
SEQ B S		1701				1701				1701					1701					1701		_			1701			1701		

PDB annotation	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)	KINASE KINASE, SIGNAL TRANSDUCTION, CALCIUM/CALMODULIN		PROTEIN KINASE CDK2; PROTEIN
Coumpound	P53; CHAIN: A; 53BP2; CHAIN: B;	P53; CHAIN: A; S3BP2; CHAIN: B;	CALCIUM/CALMODULIN- DEPENDENT PROTEIN KINASE; CHAIN: NULL;	TRANSFERASE(PHOSPHOTRA NSFERASE) \$C-/AMP\$- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (\$C/APK\$) 1APM 3 (CATALYTIC SUBUNIT) ALPHA ISOENZYME MUTANT WITH SER 139 1APM 4 REPLACED BY ALA (/S139A\$) COMPLEX WITH THE PEPTIDE 1APM 5 INHIBITOR PK1(5-24) AND THE DETERGENT MEGA-8 1APM 6	CYCLIN-DEPENDENT PROTEIN
SEQFOL D score	70.78				
PMF score		0.55	0.65	0.86	0.11
Verify		-0.07	0.08	0.30	0.22
Psi Blast	7.5e-35	4.5e-37	1.6e-70	6.4c-98	1.1e-46
END	396	283	303	312	266
STAR T AA	214	18	31	29	29
CHAI N ID	Ø	В		ш	
PDB ID	1ycs	1ycs	1a06	1арт	ladl
SEQ NO:	1701	1701	1702	1702	1702

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ion	KINASE, CELL CYCLE, PHOSPHORYLATION, STAUROSPORINE, 2 CELL DIVISION, MITOSIS, INHIBITION	SCAFFOLD PROTEIN SCAFFOLD PROTEIN, PP2A, PHOSPHORYLATION, HEAT REPEAT	SCAFFOLD PROTEIN SCAFFOLD PROTEIN, PP2A, PHOSPHORYLATION, HEAT REPEAT			TRANSFERASE KINASE DOMAIN, AUTOINHIBITORY FRAGMENT, HOMODIMER	PROTEIN KINASE CDK2; TRANSFERASE, SERINE/THREONINE PROTEIN KINASE, ATP-BINDING, 2 CELL CYCLE, CELL DIVISION, MITOSIS, PHOSPHORYLATION	NUCLEAR IMPORT RECEPTOR KARYOPHERIN ALPHA; NUCLEAR IMPORT RECEPTOR, NUCLEAR LOCALIZATION SIGNAL, 2
PDB annotation	CYCLE, ATTON, INE, 2 CE BITTON	OTEIN SO A, ATION, I	OTEIN S 4, ATION, I			EKINASI ORY FRA	ASE CDK: E, ONINE PI SINDING DIVISION ATION	ORT REC N ALPHA PTOR, NI N SIGNA
[QA	KINASE, CELL CYCLE, PHOSPHORYLATION, STAUROSPORINE, 2 CI MITOSIS, INHIBITION	SCAFFOLD PRO PROTEIN, PP2A, PHOSPHORYLA	SCAFFOLD PRO PROTEIN, PP2A, PHOSPHORYLA			TRANSFERASE KINASE DOMAI AUTOINHIBITORY FRAGMENT, HOMODIMER	PROTEIN KINASE CDK2; TRANSFERASE, SERINE/THREONINE PROTEIN KINASE, ATP-BINDING, 2 CELL CYCLE, CELL DIVISION, MITO? PHOSPHORYLATION	NUCLEAR IMPORT RECEPTOR KARYOPHERIN ALPHA; NUCLE IMPORT RECEPTOR, NUCLEAR LOCALIZATION SIGNAL, 2
	KINA PHOS STAU MITO	SCAF PROT PHOS	SCAF PROT PHOS			TRAN AUTC HOMC	PROT TRAN SERIN KINA CYCL	NUCL KARY IMPO LOCA
	·,	E PP2A;	E PP2A;	E OTEIN BUNIT MK 4	OTRA CINASE IP 3 ICTP 4	OTEIN HAIN: IE- ALPHA;	DENT.	IN: A;
Coumpound	IN: NOLI	PHATAS	PHATAS	SFERAS ENT PRC YTIC SU 1.37) 1C	(PHOSPH MP- (OTEIN K APK) ICT	NINE-PR LPHA; CI IREONIN	N-DEPENIN: NULI	на; сна
Coun	KINASE 2; CHAIN: NULL;	PROTEIN PHOSPHATASE PP2A; CHAIN: A, B;	PROTEIN PHOSPHATASE PP2A; CHAIN: A, B;	PHOSPHOTRANSFERASE CAMP-DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT ICMK 3 (E.C.2.7.1.37) ICMK 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3 (CATALYTIC SUBUNIT) 1CTP 4	SERINE/THREONINE-PROTEIN KINASE PAK-ALPHA; CHAIN: A, B; SERINE/THREONINE- PROTEIN KINASE PAK-ALPHA; CHAIN: C, D;	HUMAN CYCLIN-DEPENDENT KINASE 2; CHAIN: NULL;	IMPORTIN ALPHA; CHAIN: A;
	KINASI	PROTEIN PHO CHAIN: A, B;	PROTEIN PH(CHAIN: A, B;	PHOSP CAMP- KINASI	TRANS NSFER DEPEN (E.C.2.7 (CATA)	SERINE KINASI A, B; SE PROTE CHAIN	HUMAI	IMPOR
SEQFOL D score	i i	<u>-</u> .						
PMF score		00.1	1.00	0.75	0.86	0.98	0.60	0.24
Verify score		0.22	0.29	0.10	0.01	0.35	0.26	0.26
Psi Blast		0.0003	1.4e-33	3.2e-99	8e-94	3.2e-49	4.8e-49	6e-05
END I	!	416 0	560 1	312 3	303	264 3	266 4.	9 155
STAR T		231 4	278 5			i		328 5
CHAI S N ID 1		2	2	23	29	29	29	m .
PDB C		1b3u A	1b3u A	1cmk E	1сф Е	1f3m C	Ihel	al A
SEQ P		1702	1702 11	1702	1702 10	1702 11	1702 11	1702 lial
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PDB annotation	ARMADILLO REPEATS, AUTOINHIBITION, INTRASTERIC REGULATION	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE; TRANSFERASE, MAP KINASE, SERINE/THEONINE-PROTEIN	KINASE, 2 P38	KINASE RABBIT MUSCLE PHOSPHORYLASE KINASE;	GLYCOGEN METABOLISM, TRANSFERASE.	SERINE/THREONINE-PROTEIN, 2	KINASE, ATP-BINDING,	CALMODULIN-BINDING	CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2	COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)	STRUCTURAL PROTEIN	ARMADILLO REPEAT, BETA- CATENIN, STRUCTURAL PROTEIN		CALCIUM-BINDING PROTEIN CALCIUM-MYRISTOYL SWITCH.	CALCUIM-BINDING PROTEIN		CELL CYCLE REGULATION CELL	HERPESVIRUS SAIMIRI, VIRAL
Coumpound		TWITCHIN; CHAIN: NULL;	TWITCHIN; CHAIN: A, B;	MAP KINASE P38; CHAIN: NULL;		PHOSPHORYLASE KINASE; CHAIN: NULL;					CALMODULIN; CHAIN: A; RS20; CHAIN: B;		BETA-CATENIN; CHAIN: NULL;			RECOVERIN; CHAIN: NULL;			CYCLIN HOMOLOG; CHAIN: A;	
SEQFOL D score				88.18																
PMF		0.75	96.0			0.99					0.09		0.52			0.07			0:30	
Verify score		0.30	0.51			0.48					-0.18	,	-0.31			-0.04			-0.26	
Psi Blast		1.3e-58	8e-57	3.2e-42		6.4e-71					1.1e-19		0.0001			0.0003			3.2e-26	
END AA		304	265	334		264					453		095			440			352	
STAR T AA		29	29	E		31					301		438			308			157	
CHAI N ID			¥			· · · · · ·					∀								∢	
PDB ID		1koa	Ikob	1p38		1phk					lvrk		2bct			liku			1bu2	
SEQ ID NO:		1702	1702	1702		1702					1702		1702			1704			1705	

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CYCLIN	TRANSCRIPTION/DNA TRANSCRIPTION INITIATION	FACTOR IIB, TFIIBC; TATA-BOX FACTOR, TATA SEQUENCE-	BINDING PROTEIN, PROTEIN-DNA COMPLEX, CYCLIN-LIKE FOLD,	HELIX-TURN-HELIX, 2 TATA-BOX,			COMPLEX (PROTEIN	KINASE/CYCLIN) CYCLIN-	DROTTEIN KINASE-C, CONZ, F33	COMPLEX (PROTEIN	KINASE/CYCLIN), CYCLIN, CDK, 2	PHOSPHORYLATION, SUBSTRATE	PRIDAY BROTEN CVCI IN CET I	CYCLE KINASPEREGIT ATORY	SUBUNIT, 2 BINDING PROTEIN		TRANSCRIPTION INHIBITOR BETA-	FNOFELLER	COMPLEX (GTP-	BINDING/IRANSDUCER) BETA1,	GAMAIA TO ANGUITON CAMAIA	SUBUNIT: COMPLEX (GTP-	BINDING/TRANSDUCER), G	PROTEIN, HETEROTRIMER 2
	GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M,	Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, J, N, R;	ADMLP TATA-BOX DNA CONTAINING IIB	RECOGNITION CHAIN: C, G, K,	CONTAINING IIB	RECOGNITION CHAIN: D, H, L, P, T;	CELL DIVISION PROTEIN	KINASE 2; CHAIN: A, C;	A. CHAIN: B. D. STIBSTRATE	PEPTIDE; CHAIN: E, F;			CVCI IN A. CHAINI. NIII I.	CICLIN A; CHAIN: NOLL;			TRANSCRIPTIONAL	B, C;	GT-ALPHA/GI-ALPHA	CHIMERA; CHAIN: A; GI-	CHAIN: 6: OL-UNIMIN, CO. CHAINING,	circuit.		
	0.17						10.0						700	÷			1.00		0.93					
	-0.02						-0.21						119	7			9.65		0.35					
	1.3e-23						4.8e-49						4 80-48	4.00-40			8e-67		1.4e-59					
	350						345						345	}			571		529					
	183						981						142	7.			277		230					
	¥				-		В	•									⋖		В			-		
	1696						14mz						lvi.				Jerj.		1got	_				
	1705						1705						1705	3			1708		1708					
	CACTIN	1c9b A 183 350 1.3e-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M,	1c9b A 183 350 1.3e-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R;	169b A 183 350 1.3e-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB	169b A 183 350 1.3e-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, J, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K,	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T;	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q, TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; Iqmz B 136 345 4.8e-49 -0.21 0.01 CELL DIVISION PROTEIN	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, C, K, O, S; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; RECOGNITION PROTEIN CHAIN: D, H, L, P, T; RINASE 2; CHAIN: A, C; CALAIN: A, C;	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; RECOGNITION CHAIN: D, H, L, P, T; CELL DIVISION PROTEIN KINASE 2; CHAIN: A, C; GZMITOTIC-SPECIFIC CYCLIN A. C. CHAIN: B, D, STIBSTRATE	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; CELL DIVISION PROTEIN KINASE 2; CHAIN: A, C; GZ/MITOTIC-SPECIFIC CYCLIN A; CHAIN: B, D; SUBSTRATE PEPTIDE; CHAIN: E, F;	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHARN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHARN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; CELL DIVISION PROTEIN KINASE 2; CHAIN: A, C; GZ/MITOTIC-SPECIFIC CYCLIN A; CHAIN: B, D; SUBSTRATE PEPTIDE; CHAIN: B, F; FEPTIDE; CHAIN: E, F;	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, J, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; CELL DIVISION PROTEIN KINASE 2; CHAIN: A, C; GZMITOTIC-SPECIFIC CYCLIN A; CHAIN: B, D; SUBSTRATE PEPTIDE; CHAIN: E, F;	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q, TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T, T, T, T, T, T, T, T, T, T, T, T, T,	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; CONTAINING IIB RECOGNITION PROTEIN KINASE 2; CHAIN: A, C; G2/MITOTIC-SPECIFIC CYCLIN A; CHAIN: B, D; SUBSTRATE PEPTIDE; CHAIN: B, D; SUBSTRATE PEPTIDE; CHAIN: B, D; SUBSTRATE PEPTIDE; CHAIN: B, E, F;	1c9b A 183 350 1.3e-23 -0.02 0.17 GENERAL TRANSCRIPTION	169b A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION	1c9b A 183 350 1.3e-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB, CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN, CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; T, CANDAR CONTAINING IIB RECOGNITION CHAIN: A, C, C, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN: D, H, L, P, T; T, C, C, C, C, C, C, C, C, C, C, C, C, C,	1c9b A 183 350 1.3e-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IIB; CHAIN. A, E.I. M, Q, TATA BOX BINDING PROTEIN, CHAIN. B, F.J. N, R; ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN. C, G, S, ADMLP TATA-BOX DNA CONTAINING IIB RECOGNITION CHAIN. D, H, L, P, T; CHAIN. C, C, T, T, T, T, T, T, T, T, T, T, T, T, T,	159b A 183 350 1.3e-23 -0.02 0.17	169b A 183 350 1.3e-23 -0.02 0.17 GENERAL TRANSCRIPTION	169b A 183 350 136-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IB; CHANI: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHANI: B, F, I, N, R; ADMLP TATA-BOX DNA CONTANUNG IB RECOGNITION CHANI: C, G, K, O, S, ADMLP TATA-BOX DNA CONTANUNG IB RECOGNITION CHANI: D, H, L, P, T; P, T	169b A 183 350 136-23 -0.02 0.17 DENERAL TRANSCRIPTION FACTOR IB; CHAIN: A, E, I, M, Q; TATA BOX BINDING PROTEIN; CHAIN: B, F, I, N, R; ADMLP TATA-BOX DNA CONTANUNG IB RECOGNITION CHAIN: D, H, L, P, T; P, T;	1696 A 183 350 1.36-23 -0.02 0.17 GENERAL TRANSCRIPTION FACTOR IB; CHAIN: A, E, I, M, G, TATA BOX BINDING PROTEIN; CHAIN: B, F, I, M, F, ADMLP TATA-BOX DNA CONTANING IB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTANING IB RECOGNITION CHAIN: C, G, K, O, S, ADMLP TATA-BOX DNA CONTANING IB RECOGNITION CHAIN: D, H, L, P, T, T, T, T, T, T, T, T, T, T, T, T, T,

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PDB annotation	SIGNAL TRANSDUCTION	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (TRANSFERASE/PEPTIDE) COMPLEX (TRANSFERASE/PEPTIDE)		COMPLEX (PROTO- ONCOGENEEARLY PROTEIN) SRC HOMOLOGY 2 DOMAIN; SH2 DOMAIN, SIGNAL TRANSDUCTION,
Coumpound		GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	C-SRC TYROSINE KINASE; CHAIN: A, B; ACE-FORMYL PHOSPHOTYR-GLU-(N,N- DIPENTYL AMINE); CHAIN: C, D;	TRANSFERASE(PHOSPHOTRA NSFERASE) PROTO- ONCOGENE TYROSINE KINASE (E.C.2.7.1.112) 1AB2 3 (SRC HOMOLOGY 2 DOMAIN) (ABELSON, SH2 ABL) 1AB2 4 (NMR, 20 STRUCTURES) 1AB2 5	FYN PROTEIN-TYROSINE KINASE; CHAIN: F; PHOSPHOTYROSYL PEPTIDE; CHAIN: P
SEQFOL D score		104.96				
PMF score			1.00	0.09	0.12	0.06
Verify score		·	0.55	95.0	0.38	0.47
Psi Blast		1,6e-69	1.6e-69	8e-25	1.6e-22	4.8e-21
END AA		695	569	380	382	378
STAR T AA		242	280	282	282	282
CHAI N ID		æ	m	Ą		Ħ.
PDB ID		1got	lgot	1a09	1ab2	laot
SEQ ID NO:		1708	1708	1709	1709	1709

PDB annotation	PEPTIDE COMPLEX, 2 COMPLEX (PROTO-ONCOGENE/EARLY PROTEIN)	V-SRC SH2 DOMAIN SRC SH2; V-SRC SH2 DOMAIN, PHOSPHOTYROSINE RECOGNITION DOMAIN, PP60 2 SRC SH2 DOMAIN	PHOSPHORYLATION SIGNAL TRANSDUCTION, TYROSINE KINASE, TRANSFERASE, 2 PHOSPHOTRANSFERASE, PHOSPHORYLATION	COMPLEX (PHOSPHOTRANSFERASE/PEPTIDE) PROTEIN-TYROSINE KINASE SH2 DOMAIN, COMPLEX 2 (PHOSPHOTRANSFERASE/PEPTIDE)	COMPLEX (PHOSPHOTRANSFERASE/PEPTIDE) PHOSPHOTRANSFERASE, COMPLEX (PHOSPHOTRANSFERASE/PEPTIDE)	SH2 DOMAIN GRB2; GRB2, SH2 DOMAIN, PROTEIN NMR, SOLUTION STRUCTURES	COMPLEX (KINASE/PEPTIDE)	COMPLEX (TYROSINE KINASE/PEPTIDE)
Conmpound		PP60 V-SRC TYROSINE KINASE TRANSFORMING PROTEIN; CHAIN: NULL;	P55 BLK PROTEIN TYROSINE KINASE; CHAIN: NULL;	SYK PROTEIN TYROSINE KINASE; CHAIN: A; ACETYL- THR-PTR-GLU-THR-LEU-NH2; CHAIN: B;	P56LCK TYROSINE KINASE; CHAIN: L; PHOSPHONOPEPTIDE CHAIN: P;	GROWTH FACTOR RECEPTOR BOUND PROTEIN-2; CHAIN: NULL;	P56==LCK== TYROSINE KINASE; ILCK 7 CHAIN: A; ILCK 8 TAIL PHOSPHOPEPTIDE TEGQ(PHOSPHO)YQPQPA; ILCK 14 CHAIN: B; ILCK 15	HUMAN PS6 TYROSINE KINASE; ILKK 7 CHAIN: A; ILKK 8 PHOSPHOTYROSYL PEPTIDE AC-PTYR-GLU-GLU- ILE; ILKK 11 CHAIN: B; ILKK
SEQFOL D score								
PMF score		0.01	0.07	-0.01	0.07	0.16	0.01	0.15
Verify score		0.29	0.31	0.44	0.13	0.18	0.08	0.49
Psi Blast		1.6e-24	1.6e-22	1.1e-17	1.4e-19	1.le-17	6.4e-26	3.2e-21
END		385	379	379	375	377	379	379
STAR T AA		284	275	281	286	281	242	282
CHAI N ID				Y	1		∢	¥
PDB ID		15kl	ibij	lcsy	lcwd	1fhs	lick	11kk
SEQ EQ		1709	1709	1709	1709	1709	1709	1709

PDB annotation				TYROSINE PHOSPHATASE SYP. SHPTP-2; TYROSINE PHOSPHATASE, INSULIN SIGNALING, SH2 PROTEIN	TRANSFERASE HCK, SH2, TYROSINE KINASE, SIGNAL TRANSDUCTION, TRANSFERASE	HALOPEROXIDASE BROMOPEROXIDASE L, HALOPEROXIDASE L; HALOPEROXIDASE, OXIDOREDUCTASE	HALOPEROXIDASE BROMOPEROXIDASE L, HALOPEROXIDASE L; HALOPEROXIDASE,
Coumpound	12	PHOSPHOTRANSFERASE V. SRC TYROSINE KINASE TRANSFORMING PROTEIN (PHOSPHOTYROSINE 1SHA 3 RECOGNITION DOMAIN SH2) (E.C.2.7.1.112) COMPLEX WITH 1SHA 4 PHOSPHOPEPTIDE A (TYR-VAL-PRO-MET-LEU, PHOSPHORYLATED TYR) 1SHA 5	SIGNALLING PROTEIN PHOSPHATIDYLINOSITOL 3- KINASE (E.C.2.7.1.137) (N- TERMINAL 2PNA 3 SH2 DOMAIN OF P85-ALPHA SUBUNIT) (NMR, 22 STRUCTURES) 2PNA 4	SHP-2; CHAIN: A, B;	HCK SH2; CHAIN: NULL;	CHLOROPEROXIDASE L; CHAIN: A, B, C;	CHLOROPEROXIDASE L; CHAIN: A, B, C;
SEQFOL D score						85.13	
PMF score		0.07	0.78	90:04	0.25		1.00
Verify score		15.0	0.33	-0.31	0.19		0.36
Psi Blast		1.6e-24	6.4e-18	3.2e-27	1.6e-22	3e-41	3e-41
END		380		439	379	357	356
STAR T AA		284	286	257	281	76	84
CHAI N ID		A		A		4	Y
PDB ID		1sha	2pna	2shp	3hck	1a88	1a88
SEQ ID NO:		1709	1709	1709	1709	1710	1710

PDB annotation		OXIDOREDUCTASE		HALOPEROXIDASE A1,	HALOPEROXIDASE,		HALOPEROXIDASE HAIOPEROXIDASE E	HALOPEROXIDASE.	OXIDOREDUCTASE, PROPIONATE	COMPLEX		HALOPEROXIDASE F;	HALOPEROXIDASE,	OXIDOREDUCTASE, PROPIONATE	COMPLEX		AMINOPEPTIDASE, PROLINE	IMINOPEPTIDASE, SERINE	PROTEASE, 2 XANTHOMONAS	CAMPESTRIS	HYDROLASE HYDROLASE,		ALPHA/BETA-HYDROLASE	HYDROLASE HYDROLASE,	I: HALOALKANE DEHALOGENASE,			HALOPEROXIDASE A2,	CHLOROPEROXIDASE A2;	HALOPEROXIDASE,	OXIDOREDUCTASE, PEROXIDASE,	ALPHA/BETA 2 HYDROLASE FOLD,
Coumpound			BROMOPEROXIDASE A1;	CHAIN; NOLL;		a no rather order of the	CHLOROPEROXIDASE F;	Circuit: MOLE,			CHLOROPEROXIDASE F;	(CHAIN: NULL;			;	PROLINE IMINOPEPTIDASE;	CHAIN: A, B;				HALOALKANE	DEHALOGENASE; CHAIN:	NULL;	HALOALKANE	DEHALOGENASE; CHAIN:	NULL;	BROMOPEROXIDASE A2;	CHAIN: NULL;				
SEQFOL	D SCOTE		95.47			70 00	83.84									67.83					94.11						89.86					
PMF	score										1.00													1.00								
Verify	Score				_						0.61													0.45		[_				
Psi Blast			8e-31			11	4-6-4				9e-41					1.5e-36					3e-43			3e-43			8e-32					
END	AA		360			2,62	100				356					355					357			356			357					
STAR			8/			9	»				≈					83					44			83			9/					
CHAI	OL N.			-												∀																
PDB	3		la8q			9	1865				1a8s					1azw					1b6g			1b6g			lbrt	_				
SEQ	NO.		1710			1310	01/1				1710					1710					1710			1710			1710					

						r		
PDB annotation	HYDROLASE BPHD; HYDROLASE, PCB DEGRADATION	HYDROLASE AB HYDROLASE FOLD, DEHALOGENASE I-S BOND	HYDROLÁSE A/B HYDROLÁSE FOLD, DEHALOGENASE I-S BOND	HYDROLASE LINB, 1,3,4,6- TETRACHLORO-1,4- CYCLOHEXADIENE DEHALOGENASE, LINDANE, BIODEGRADATION, ALPHA/BETA- HYDROLASE	HYDROLASE TRIACYLGLYCEROL- HYDROLASE, X-RAY CRYSTALLOGRAPHY, 2 PSEUDOMONADACEAE, OXYANION, CIS-PEPTIDE, HYDROLASE	HYDROLASE TRIACYLGLYCEROL- HYDROLASE, X-RAY CRYSTALLOGRAPHY, 2 PSEUDOMONADACEAE, OXYANION, CIS-PEPTIDE, HYDROLASE	HYDROLASE HYDROLASE, ALPHA/BETA HYDROLASE FOLD, EPOXIDE DEGRADATION, 2 EPICHLOROHYDRIN	HYDROLASE HOMODIMER, ALPHA/BETA HYDROLASE FOLD, DISUBSTITUTED UREA 2 INHIBITOR
Coumpound	2-HYDROXY-6-OXO-6- PHENYLHEXA-2,4-DIENOATE CHAIN: A;	HALOALKANE DEHALOGENASE; 1- CHLOROHEXANE CHAIN: A;	HALOALKANE DEHALOGENASE; 1- CHLOROHEXANE CHAIN: A;	HALOALKANE DEHALOGENASE; CHAIN: A;	TRIACYLGLYCEROL HYDROLASE; CHAIN: NULL;	TRIACYLGLYCEROL HYDROLASE; CHAIN: NULL;	SOLUBLE EPOXIDE HYDROLASE; CHAIN: A, B, C, D;	EPOXIDE HYDROLASE; CHAIN: A, B;
SEQFOL D score	77.34	122.01					119.90	
PMF score			1.00	1.00	0.63	0.07		1.00
Verify score			0.58	0.60	0.11	0.25		0.52
Psi Blast	3.2e-36	9e-47	9e-47	.3e-44	3e-13	4.8e-09	9.6e-37	8e-43
END AA	357	360	328	358	661	212	356	356
STAR T AA	72	19	74	73	101	26	99	79
CHAI N ID	∢	¥	₹	¥			¥	¥
80g E1	1c4x	lcqw	lcqw	lcv2	lcvl	lovi	lehy	lek1
SEQ NO H	1710	1710	1710	1710	1710	1710	1710	1710

PDB annotation	HYDROLASE HOMODIMER, ALPHA/BETA HYDROLASE FOLD, DISUBSTITUTED UREA 2 INHIBITOR	HYDROLASE HOMODIMER, ALPHA/BETA HYDROLASE FOLD, DISUBSTITUTED UREA 2 INHIBITOR	HYDROLASE HOMODIMER, ALPHA/BETA HYDROLASE FOLD, DISUBSTITUTED UREA 2 INHIBITOR	PASE	AB ESTERASE; YDROLASE LUTION	ACEAE, CIS-	CONFORMATION, 2 HYDROLASE, LID	HYDROLASE PSEUDOMONADACEAE, CIS- PEPTIDE, CLOSED CONFORMATION, 2 HYDROLASE,	OLASE EH; OLASE, YDROLASE	PHA BETA SLD, PROLINE, PPEPTIDASE, 2 (OPEPTIDASE	LIPASE LIPASE, LIPASE, HYDROLASE, PSEUDOMONADACEAE, COVALENT NTERMEDIATE, 2 TRIGLYCERIDE
PDB	HYDROLASE HOMODIMER ALPHA/BETA HYDROLASE DISUBSTITUTED UREA 2 IN	HYDROLASE HOMODIMER ALPHA/BETA HYDROLASE DISTIBSTITUTED LIREA 2 IN	HYDROLASE HOMODIMER ALPHA/BETA HYDROLASE DISUBSTITUTED UREA 2 IN	HYDROLASE LIPASE	HYDROLASE PNB ESTERASE; ALPHA-BETA HYDROLASE DIRECTED EVOLUTION	HYDROLASE PSEUDOMONADACEAE, CIS- PEPTIDE, CLOSED	CONFORMATIO	HYDROLASE PSEUDOMONADACEAE, CIS- PEPTIDE, CLOSED CONFORMATION, 2 HYDROL 1 ID	EPOXIDE HYDROLASE EH; EPOXIDE HYDROLASE, ALPHABETA HYDROLASE	HYDROLASE ALPHA BETA HYDROLASE FOLD, PROLINE, PROLYL AMINOPEPTIDASE, 2 SERRATIA, IMINOPEPTIDASE	LIPASE LIPASE; LIPASE; HYDROLASE, PSEUDOMONADACEAE, INTERMEDIATE, 2 TRIG
Coumpound	EPOXIDE HYDROLASE; CHAIN: A, B;	EPOXIDE HYDROLASE; CHAIN: A, B;	EPOXIDE HYDROLASE; CHAIN: A, B;	LIPASE, GASTRIC; CHAIN: A, B;	PARA-NITROBENZYL ESTERASE; CHAIN: A;	TRIACYLGLYCEROL HYDROLASE; CHAIN: D; TRIACYLGLYCEROL	HYDROLASE; CHAIN: E;	TRIACYLGLYCEROL HYDROLASE; CHAIN: D; TRIACYLGLYCEROL HYDROLASE; CHAIN: E;	EPOXIDE HYDROLASE; CHAIN: A, B;	PROLYL AMINOPEPTIDASE; CHAIN: A;	TRIACYL-GLYCEROL- HYDROLASE; CHAIN: D, E;
SEQFOL D score										80.11	
PMF score	1.00	1.00	1.00	0.07	0.27	0.81		0.28	1.00		0.11
Verify score	0.56	0.58	69.0	0.13	0.76	0.38		0.37	0.46		0.10
Psi Blast	1.2e-54	8e-43	3e-56	1.5e-06	4.5e-05	6e-25		4.8e-09	1.5e-45	6.4e-29	4.8c-10
END AA	326	356	356	226	215	238		212	358	360	215
STAR T AA	70	79	69	98	88	æ		97	74	29	97
CHAI N ID	∢	æ	æ	Ą	V	Ω		Ω	4	¥	Ω
PDB ID	lek1	lekl	lek1	1hlg	1qe3	lqge		1qge	1907	Iqtr	4lip
SEQ B SO	1710	1710	1710	1710	1710	1710		1710	1710	1710	1710

PDB annotation	ANALOGUE, ENANTIOSELECTIVITY			METAL BINDING PROTEIN RING FINGER PROTEIN MATI; RING FINGER (C3HC4)	DNA-BINDING PROTEIN V(D)J RECOMBINATION ACTIVATING PROTEIN 1; RAG1, V(D)J RECOMBINATION, ANTIBODY, MAD, RING FINGER, 2 ZINC BINUCLEAR CLUSTER, ZINC FINGER, DNA-BINDING PROTEIN	DNA-BINDING PROTEIN V(D)J RECOMBINATION ACTIVATING PROTEIN I; RAGI, V(D)J RECOMBINATION, ANTIBODY, MAD, RING FINGER, 2 ZINC BINUCLEAR CLUSTER, ZINC FINGER, DNA-BINDING PROTEIN	TOXIN BINDING PROTEIN TWO DOMAINS: BETA PROPELLER AND ALPHA/BETA FOLD	TRANSCRIPTION INHIBITOR BETA- PROPELLER
Coumpound		VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN) 1CHC 3 (NMR, 1 STRUCTURE) 1CHC 4	VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN) 1CHC 3 (NMR, 1 STRUCTURE) 1CHC 4	CDK-ACTIVATING KINASE ASSEMBLY FACTOR MAT1; CHAIN: A;	RAG1; CHAÎN: NULL;	RAG1; CHAIN: NULL;	TOLB PROTEIN; CHAIN: A;	TRANSCRIPTIONAL REPRESSOR TUPI; CHAIN: A, B, C;
SEQFOL D score								
PMF score		0.84	0.71	0.00	0.74	0.64	0.12	0.88
Verify		-0.31	-0.18	-0.64	-0.02	-0.00	0.16	0.52
Psi Blast		6e-17	3.2e-14	4.5e-14	3e-11	1.3e-07	0.009	1.4e-28
END		328	332	321	328	331	297	307
STAR T AA		275	278	276	272	280	194	171
CHAI N ID				A			¥.	¥
PDB ID		1chc	Ichc	1g25	Irmd	1rmd	lorz	lerj
SEQ ID NO:		1711	1711	1711	1711	1711	1712	1712

				7'''-	
TRANSCRIPTION INHIBITOR BETA PROPELLER	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP- BINDING/TRANSDUCER) BETAI, TRANSDUCIN BETA SUBUNIT; GAMMAI, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	COMPLEX (GTP- BINDING/TRANSDUCER) BETA1, TRANSDUCIN BETA SUBUNIT; GAMMA1, TRANSDUCIN GAMMA SUBUNIT; COMPLEX (GTP- BINDING/TRANSDUCER), G PROTEIN, HETEROTRIMER 2 SIGNAL TRANSDUCTION	STRUCTURAL GENOMICS HYPOTHETICAL PROTEIN, METHANOCOCCUS JANNASCHII	TRANSFERASE (METHYLTRANSFERASE) COMT; TRANSFERASE,
TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A, B, C;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT- BETA; CHAIN: B; GT-GAMMA; CHAIN: G;	MJ0882; CHAIN: A;	CATECHOL O- METHYL TRANSFERASE; CHAIN: NULL;
		63.92			
0.96	1.00		1.00	0.43	0:30
0.33	0,43		0.54	-0.10	-0.07
1.3e-44	6.4e-39	1.6e-48	1.6e-48	6.4e-10	7.5e-11
289	290	307	305	446	455
37	14	-	28	338	334
¥	м	æ	м	А	
lerj	Igot	lgot	lgot	1dus	lvid
1712	1712	1712	1712	1713	1713
	1erj A 37 289 1.3e-44 0.33 0.96 TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A, B, C; B, C;	lerj A 37 289 1.3e-44 0.33 0.96 TRANSCRIPTIONAL lgot B C; B, C; B, C; lgot B 1.00 GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: A; GT-BETA; CHAIN: B; GT-GAMMA; BETA; CHAIN: B; GT-GAMMA;	lerj A 37 289 1.3e-44 0.33 0.96 TRANSCRIPTIONAL lgot B 14 290 6.4e-39 0.43 1.00 GT-ALPHA/GI-ALPHA lgot B 1 307 1.6e-48 63.92 GT-ALPHA/GI-ALPHA lgot B 1 307 1.6e-48 63.92 GT-ALPHA/GI-ALPHA CHAIN: G; CHAIN: B; GT-GAMMA; CHAIN: B; GT-GAMMA; CHAIN: B; GT-GAMMA;	1egi A 37 289 1.3e-44 0.33 0.96 TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A, B, C, CHIMERA; CHAIN: A; GT-ALPHA/GI-ALPHA CHIMERA; CHAIN: B; GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: C, CHAIN: B, GT-GAMMA; CHAIN: B, GT-GAMMA; CHAIN: C,	1ed A 37 289 1.36-44 0.33 0.96 TRANSCRIPTIONAL REPRESSOR TUP1; CHAIN: A, B. C; B. C; CHAIN: A, CHAIN: B;

STAR END Psi Blast Verify PMF SEQFOL TAA AA score score D score	Verify PMF score	PMF	 	re OI	Coumpound	PDB annotation METHYLTRANSFERASE, NEUROTRANSMITTER DEGRADATION
345 497 3.2e-13 0.14 0.53	0.14	0.53			DNA NUCLEOTIDE EXCISION REPAIR ENZYME UVRB; CHAIN: A;	DEGRADATION REPLICATION DNA NUCLEOTIDE EXCISION REPAIR, UVRABC, HELICASE, 2 HYPERTHERMOSTABLE PROTEIN
371 494 4.5e-16 0.50 0.96	0.50	0.96			DNA NUCLEOTIDE EXCISION REPAIR ENZYME UVRB; CHAIN: A;	REPLICATION DNA NUCLEOTIDE EXCISION REPAIR, UVRABC, HELICASE, 2 HYPERTHERMOSTABLE PROTEIN
20 170 0.0006 0.42 0.77	0.42	0.77			PROTEASE/HELICASE NS3; CHAIN: A, B;	HYDROLASE HEPATITIS C VIRUS, BIFUNCTIONAL, PROTEASE- HELICASE
	60:0	0.62			EXCINUCLEASE ABC SUBUNIT B; CHAIN: A;	HYDROLASE UVRB; MULTIDOMAIN PROTEIN
370 513 1.5e-16 -0.11 0.86	-0.11				EXCINUCLEASE ABC SUBUNIT B; CHAIN: A;	HYDROLASE UVRB; MULTIDOMAIN PROTEIN
346 525 3 20 0.35 0.99		0.99			EXCINUCLEASE UVRABC COMPONENT UVRB; CHAIN: A;	GENE REGULATION APO PROTEIN
354 508 3.2e-18 0.20 0.43	0.20	0.43			EXCINUCLEASE UVRABC COMPONENT UVRB; CHAIN: A;	GENE REGULATION APO PROTEIN
338 508 1.1e-39 0.07 0.18	0.07	0.18			BUKARYOTIC INITIATION FACTOR 4A; CHAIN: A;	TRANSLATION YEAST INITIATION FACTOR 4A, EIF4A; HELICASE, INITIATION FACTOR 4A, DEAD-BOX PROTEIN
2 169 1.6e-25 0.02 0.35	0.02	0.35			YEAST INITIATION FACTOR 4A; CHAIN: A, B;	TRANSLATION EUKARYOTIC INITIATION FACTOR 4A; IF4A, HELICASE, DEAD-BOX PROTEIN
119 508 0 0.04 -0.06		-0.06		<u> </u>	YEAST INITIATION FACTOR 4A; CHAIN: A, B;	TRANSLATION EUKARYOTIC INITIATION FACTOR 44; IF4A, HELICASE, DEAD-BOX PROTEIN
2 169 1.6e-25 0.06 0.21.	90.0	0.21		1	YEAST INITIATION FACTOR	TRANSLATION EUKARYOTIC

PDB annotation	INITIATION FACTOR 4A; IF4A, HELICASE, DEAD-BOX PROTEIN	HELICASE HELICASE, RNA, HEPATITIS, HCV, ATPASE, NTPASE	GENE REGULATION EIF4A; TRANSLATION INITIATION, SACCHAROMYCES CEREVISIAE, DEAD BOX 2 PROTEIN FAMILY	HYDROLASE/DNA ATP-DEPENDENT HELICASE PCRA; ATP-DEPENDENT HELICASE PCRA; HELICASE PCRA, HYDROLASE, DNA, PRODUCT COMPLEX		INTEGRIN INTEGRIN, CELL ADHESION, GLYCOPROTEIN	INTEGRIN INTEGRIN, CELL ADHESION, GLYCOPROTEIN	COLLAGEN-BINDING COLLAGEN- BINDING, HEMOSTASIS, DINUCLEOTIDE BINDING FOLD	WILLEBRAND WILLEBRAND, BLOOD COAGULATION, PLATELET, GLYCOPROTEIN	WILLEBRAND WILLEBRAND, BLOOD COAGULATION, PLATELET, GLYCOPROTEIN	CONNECTIN 471, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN
Соитроипа	4A; CHAIN: A, B;	HCV HELICASE; CHAIN: A, B;	TRANSLATION INITIATION FACTOR 4A; CHAIN: A;	HELICASE PCRA; CHAIN: A, F; HELICASE PCRA; CHAIN: B, G; DNA (5-D(*TP*TP*TP*TP*T)-3); CHAIN: C, D; DNA (5'-D(*GP*C)-3); CHAIN: H; DNA (5'-D	D(*AP*CP* IP*GP*C)-3'); CHAIN: I;	INTEGRIN ALPHA 2 BETA; CHAIN: A, B;	INTEGRIN ALPHA 2 BETA; CHAIN: A, B;	VON WILLEBRAND FACTOR; CHAIN: A, B;	AI DOMAIN OF YON WILLEBRAND FACTOR; CHAIN: NULL:	AI DOMAIN OF YON WILLEBRAND FACTOR; CHAIN: NULL;	TITIN; CHAIN: NULL;	TITIN; CHAIN: NULL;
SEQFOL D score							75.90	89.44	65.12			
PMF score		0.22	0.39	0.33		1.00				66'0	-0.01	0.41
Verify score		0.29	0.10	0.22		0.62			:	0.79	0.22	0.65
Psi Blast		0.0014	3.26-23	0.0006		1.1e-21	1.1e-21	4.8e-17	1.6e-26	1.6e-26	3.2e-11	9e-12
END AA		170	691			170	220	213	221	220	302	427
STAR T AA		13	2	2		28	28	31	23	30	211	329
CHAI N ID		Ą	Ą	∢		4	¥	V				
PDB ID		1hei	Iqde	2pjr		laox	laox	latz	lauq	lauq	1bpv	1bpv
SEQ ID NO:		1719	1719	1719		1721	1721	1721	1721	1721	1721	1721

PDB annotation	TYPEIII	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	SIGNALING PROTEIN CYTOKINE RECEPTOR, GLYCOPROTEIN 130, GP130, INTERLEUKINE 6 2 RECEPTOR BETA SUBUNIT, SIGNALING PROTEIN								•		STRUCTURAL PROTEIN I-DOMAIN,	MEIAL BINDING, COLLAGEN, ADHESION	STRUCTURAL PROTEIN I-DOMAIN, METAL BINDING, COLLAGEN,	ADHESION
Coumpound		TITIN; CHAIN: NULL;	GP130; CHAIN: A, B;	NEURAL ADHESION MOLECULE DROSOPHILA NEUROGLIAN	(CHYMOTRYPTIC FRAGMENT CONTAINING THE 1CFB 3 TWO	AMINO PROXIMAL FIBRONECTIN TYPE III	REPEATS 1CFB 4 (RESIDUES 610 - 814)) 1CFB 5	NEURAL ADHESION MOLECULE DROSOPHILA NEI BOGI IAN	(CHYMOTRYPTIC FRAGMENT	CONTAINING THE 1CFB 3 TWO AMINO PROXIMAL	FIBRONECTIN TYPE III	REPEATS ICFB 4 (RESIDUES 610 - 814)) ICFB 5	INTEGRIN ALPHA-I; CHAIN: A,	B;	INTEGRIN ALPHA-1; CHAIN: A, B;	CELL ADHESION PROTEIN
SEQFOL D score				52.60												
PMF score		0.09	0.48					-0.07					1.00		1.00	0.70
Verify score		0.47	0.45					0.09					0.46		0.96	0.49
Psi Blast		3.2e-13	3.2e-12	1.4e-11		•		1.4e-11					9.6e-21		6e-38	1.1e-13
END AA		418	419	427				412					170		209	415
STAR T AA		342	337	208				209					33		34	338
CHAI N ID		,	¥										Ą		∢	
PDB		1bpv	Ibqu	1cfb				1cfb					1ck4		1ck4	1 fna
SEQ NO:		1721	1721	1721	÷			1721					1721		1721	1721

		Ī	90	Ι.		90	<u> </u>	1			Г				-	<u></u>	_				~					~	T	_
PDB annotation			CELL ADHESION PROTEIN RGD, EXTRACELLULAR MATRIX IFNF 18	CELL ADHESION PROTEIN RGD,	EXTRACELLULAR MATRIX IFNF 18 CELL ADHESION PROTEIN RGD	EXTRACELLULAR MATRIX 1FNF 18	HEPARIN AND INTEGRIN BINDING	HEPARIN AND INTEGRIN BINDING	HEPARIN AND INTEGRIN BINDING	HEPARIN AND INTEGRIN BINDING HEPARIN AND INTEGRIN BINDING	IMMUNE SYSTEM VON	WILLEBRAND FACTOR,	GLYCOPROTEIN IBA (A:ALPHA)	BINDING, 2 COMPLEX	(WILLEBRAND/IMMUNOGLOBULIN), BLOOD COAGULATION TYPE 3 2B	VON WILLEBRAND DISEASE	CELL ADHESION PROTEIN A-	DOMAIN INTEGRIN, CELL	ADHESION PROTEIN,	GLYCOPROTEIN, EXTRACELLULAR	2 MATRIX, CYTOSKELETON	CELL ADHESION PROTEIN A.	DOMAIN INTEGRIN, CELL	ADHESION PROTEIN,	GLYCOPROTEIN, EXTRACELLULAR 2 MATRIX CYTOSKEI FTON	CELL ADHESION LFA-1. ALPHA-	ייים יייים אונים אונים א
Coumpound		FIBRONECTIN CELL. ADHESION MODULE TYPE III- 10 1FNA 3	FIBRONECTIN; 1FNF 6 CHAIN: NULL; 1FNF 7	FIBRONECTIN; 1FNF 6 CHAIN:	NOLL; IFNF 7 FIREONECTIN: 1FNF 6 CHAIN:	NULL; IFNF 7	FIBRONECTIN; CHAIN: A;	FIBRONECTIN: CHAIN: A:	fr	FIBRONECTIN; CHAIN: A;	IMMUNOGLOBULIN NMC-4	IGG1; CHAIN: L;	IMMUNOGLOBULIN NMC-4	IGGI; CHAIN: H; VON	WILLEBRAND FACTOR;	CHAIN: A;		INTEGRIN; CHAIN: NULL;					INTEGRIN; CHAIN: NULL;				CD11A: 1LFA 5 CHAIN: A. B.	(a't' many curing the control of the
SEQFOL	D score				91 50	20:17		73 33										91.05									78.17	
PMF	score		0.13	-0.06			60'0-			0.49	1.00												1.00					
Verify	score	·	-0.05	-0.00			0.16			-0.04	0.97		-										0.65					
Psi Blast	•		1.4e-26	1.6e-31	1 6e-31		1.6e-24	1 1e-26		1.1e-26	1.6e-25							7.5e-37					7.5e-37				1.5e-36	
END	AA		444	415	425		421	421	<u> </u>	445	217							708		•			506				213	<u> </u>
STAR	I AA		106	27	28	}	107	133	}	213	30							32					34				33	-
CHAI	e Z						٧	4	:	Ą	¥																¥	·
PDB	a .		1fnf	1fnf	1fnf		1fnh	1fmh		1fnh	1fns							lido					lido				llfa	:
SEQ	a ö		1721	1721	1721		1721	1721		1721	1721							1721					1721				1721	

	_								
PDB annotation	1LFA 8	CELL ADHESION LFA-1, ALPHA- L\BETA-2 INTEGRIN, A-DOMAIN; ILFA 8	CELL ADHESION PROTEIN CELL ADHESION PROTEIN, RGD, EXTRACELLULAR MATRIX, 2 HEPARIN-BINDING, GLYCOPROTEIN	CELL ADHESION PROTEIN CELL ADHESION PROTEIN, RGD, EXTRACELLULAR MATRIX, 2 HEPARIN-BINDING, GLYCOPROTEIN	CELL ADHESION PROTEIN CELL ADHESION PROTEIN, RGD, EXTRACELLULAR MATRIX, 2 HEPARIN-BINDING, GLYCOPROTEIN	CELL ADHESION INTEGRIN, CELL ADHESION	CELL ADHESION INTEGRIN, CELL ADHESION	STRUCTURAL PROTEIN INTEGRIN, HEMIDESMOSOME, FIBRONECTIN, CARCINOMA, STRUCTURAL 2 PROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN
Coumpound		CD114; ILFA 5 CHAIN: A, B; ILFA 6	FIBRONECTIN; CHAIN: NULL;	FIBRONECTIN; CHAIN: NULL;	FIBRONECTIN; CHAIN: NULL;	ALPHAI BETAI INTEGRIN; CHAIN: A; ALPHAI BETAI INTEGRIN; CHAIN: B;	ALPHAI BETAI INTEGRIN; CHAIN: A; ALPHAI BETAI INTEGRIN; CHAIN: B;	INTEGRIN BETA-4 SUBUNIT; CHAIN: A, B;	TENASCIN; CHAIN: A, B;
SEQFOL D score			75.51						
PMF score		1.00		85.0	0.37	1.00	1.00	-0.07	0.72
Verify score		0.68		0.08	0.42	0.55	66.0	0.05	0.04
Psi Blast		1.5e-36	6.4e-24	6.4e-24	8e-17	8e-21	7.5e-28	1.6e-18	1.6e-22
END		209	425	415	445	170	209	419	421
STAR T AA		34	211	215	342	30	34	214	214
CHAI N ID		A				A	A	A	V
PDB ID		11fa	1mfn	1mfn	lmfn	19c5	1qc5	1983	Iqr4
SEQ NO.		1721	1721	1721	1721	1721	1721	1721	1721

PDB annotation	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN				PROTEIN BINDING ED-B, FIBRONECTIN, TYPEIII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING	PROTEIN BINDING ED-B, FIBRONECTIN, TYPEIII DOMAIN, ANGIOGENESIS, PROTEIN 2 BINDING	COAGULATION FACTOR	-
Coumpound	TENASCIN; CHAIN: A, B;	TENASCIN; CHAIN: A, B;	CELL ADHESION PROTEIN TENASCIN (THIRD FIBRONECTIN TYPE III REPEAT) ITEN 3	CELL ADHESION PROTEIN TENASCIN (THIRD FIBRONECTIN TYPE III REPEAT) ITEN 3	GLYCOPROTEIN FIBRONECTIN (TENTH TYPE III MODULE) (NMR, 36 STRUCTURES) ITTF 3	FIBRONECTIN; CHAIN: A;	FIBRONECTIN; CHAIN: A;	HUMAN TISSUE FACTOR; 2HFT 4 CHAIN: NULL; 2HFT \$	HORMONE/RECEPTOR HUMAN GROWTH HORMONE COMPLEXED WITH ITS
SEQFOL D score	77.31								
PMF score		0.34	0.99	0.81	0.70	0.84	0.86	-0.17	-0.19
Verify score		0.55	90.0	0.92	0.27	0.55	0.71	0.08	0.08
Psi Blast	1.6e-22	1.4e-13	3e-12	1.2e-13	3.2e-14	1.3e-06	3.2e-11	1.16-12	1.5e-16
END	421	445	301	421	415	281	421	416	422
STAR T AA	214	337	210	335	337	215	337	215	215
CHAI N ID	V	V				Ą	Ą		В
PDB ID	1qr4	1qr4	Iten .	Iten	1ttf	2fnb	2fnb	2hft	3hhr
SEQ NO:	1721	1721	1721	1721	1721	1721	1721	1721	1721

PDB annotation		TRANSLATION EUKARYOTIC INITIATION FACTOR 44; IF4A, HELICASE, DEAD-BOX PROTEIN	KINASE KINASE, SIGNAL TRANSDUCTION, CALCIUM/CALMODULIN		COMPLEX (KINASE/INHIBITOR)
Соптроип	RECEPTOR 31HR 3 (EXTRACELLULAR DOMAIN) 3HHR 4	YEAST INITIATION FACTOR 4A; CHAIN: A, B;	CALCIUM/CALMODULIN- DEPENDENT PROTEIN KINASE; CHAIN: NULL:	TRANSFERASE(PHOSPHOTRA NSFERASE) \$C-/AMP\$- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (\$C/APK\$) 1APM 3 (CATALYTIC SUBUNIT) ALPHA ISOENZYME MUTANT WITH SER 139 1APM 4 REPLACED BY ALA (/S139A\$) COMPLEX WITH THE PEPTIDE 1APM 5 INHIBITOR PKI(\$-24) AND THE- DETERGENT MEGA-8 1APM 6 TRANSFERASE(PHOSPHOTRA NSFERASE) \$C-/AMP\$- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (\$C/APK\$) 1APM 3 (CATALYTIC SUBUNIT) ALPHA ISOENZYME MUTANT WITH SER 139 1APM 4 REPLACED BY ALA (/S139A\$) COMPLEX WITH THE PEPTIDE 1APM 5 INHIBITOR PKI(\$-24) AND THE DETERGENT MEGA-8 1APM 6	CYCLIN-DEPENDENT KINASE
SEQFOL D score				59.46	52.92
PMF		0.58	0.27	0.88	
Verify score		0.19	-0.31	-0.22	
Psi Blast		4.5e-06	4.8e-39	3.2e-47 3.2e-47	8e-24
END AA		236	355	413	355
STAR T AA		146	147	143	104
CHAI N ID		В		ш	Ą
PDB ID		1fuu	1a06	Тарт Тарт	1bi8
SEQ ID NO:		1723	1724	1724	1724

PDB annotation	CDK6; P19INK4D; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, COMPLEX (KINASE/INHIBITOR) HEADER HELIX					TRANSFERASE KINASE DOMAIN, AUTOINHIBITORY FRAGMENT, HOMODIMER	SERINE/THREONINE-PROTEIN KINASE CSBP, RK, P38; PROTEIN SER/THR-KINASE, SERINE/THREONINE-PROTEIN KINASE
Coumpound	6; CHAIN: A, C; CYCLIN- DEPENDENT KINASE INHIBITOR; CHAIN: B, D;	PHOSPHOTRANSFERASE CAMP-DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT ICMK 3 (E.C.2.7.1.37) ICMK 4	PHOSPHOTRANSFERASE CAMP-DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT ICMK 3 (E.C.2.7.1.37) ICMK 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3 (CATALYTIC SUBUNIT) 1CTP 4	TRANSFERASE(PHOSPHOTRA NSFERASE) CAMP- DEPENDENT PROTEIN KINASE (E.C.2.7.1.37) (CAPK) 1CTP 3 (CATALYTIC SUBUNIT) 1CTP 4	SERINE/THREONINE-PROTEIN KINASE PAK-ALPHA; CHAIN: A, B; SERINE/THREONINE- PROTEIN KINASE PAK-ALPHA; CHAIN: C, D;	P38 MAP KINASE; CHAIN: NULL;
SEQFOL D score			59.27		58.35		56.49
PMF		0.70		0.77		0.54	
Verify score		-0.22		-0.14		0.07	
Psi Blast		1.6e-48	1.6e-48	1.6e-48	1.6e-48	4.8 c -36	1.1e-18
END		356	413	356	399	361	401
STAR T AA		143	69	143	77	147	77
CHAI		Э	μì	ш	ы	ပ	
EDB TI		lcmk	Icmk	lctp	lctp	113m	lian
SEQ NO.		1724	1724	1724	1724	1724	1724

PDB annotation	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	KINASE KINASE, TWITCHIN, INTRASTERIC REGULATION	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE; TRANSFERASE, MAP KINASE,	SERINE/THREONINE-PROTEIN KINASE, 2 P38	KINASE RABBIT MUSCLE	GLYCOGEN METABOLISM,	TRANSFERASE,	SERINE/THREONINE-PROTEIN, 2	KINASE, A I P-BINDING, CALMODULIN-BINDING	TRANSFERASE MAP KINASE,	SERINE/THREONINE PROTEIN	KINASE, TRANSFERASE	TRANSFERASE MAP KINASE,	SEKINE/THREONINE PROTEIN KINASE TRANSFERASE	SERINE KINASE SERINE KINASE	ITTIN, MUSCLE, AUTOINHIBITION		AMINE/CARBOXYLATE LIGASE	AMINE/CARBOXYLATE LIGASE		COMPLEX (NUCLEAR	PROTEIN/RNA) COMPLEX	(NUCLEAR PROTEIN/RNA), RNA,	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING
Coumpound	TWITCHIN; CHAIN: NULL; KI	TWITCHIN; CHAIN: A, B; K.	MAP KINASE P38; CHAIN: ANULL; A	SIS IX	PHOSPHORYLASE KINASE; KI		F	<u> </u>	2 0	ERK2; CHAIN: NULL;		K	ERK2; CHAIN: NULL;	7 2	TITIN: CHAIN: A. B:		\exists	IONE SYNTHETASE;	CHAIN: A;	╛	oʻ	VIN: A, C; UZ B";	CHAIN: B, D;	SXL-LETHAL PROTEIN: CHAIN: RI	
SEQFOL D score			60.82										58.82								•				
PMF	0.11	0.55			0.81					0.13		i			0.54			0.52			0.52			0.95	
Verify score	-0.27	-0.31			0.03					-0.10					-0.27			-0.23			0.40			0.26	
Psi Blast	1.1e-33	6.4e-34	1.6e-24		3.2e-43					1.1e-24			1.1e-24		3.2e-27		2000	0.0088			7.5e-07			9e-05	
END AA	356	356	403		356					414			392		362		ì	99			255			616	
STAR T AA	148	150	42		127					162			83	_	150						880			542	
CHAI N ID		Ą													4			· ∢		1	n n			A	
PDB ID	Ikoa	1kob	1p38		1pk					Ірте			Ipme		<u>芸</u>			Zhgs	1	+	n Sal			1b7f	
SEQ ID NO:	1724	1724	1724		1724					1724			1724		1724		02.	1/26		302:	1/28			1728	

PDB annotation	REGULATION, RNP DOMAIN, RNA COMPLEX	RNA-BINDING PROTEIN/RNA TRA PRE-MRNA; SPLICING REGULATION, RNP DOMAIN, RNA COMPLEX	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	GENE REGULATION/RNA POLY(A) BINDING PROTEIN I, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNÁ	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	RNA BINDING PROTEIN/RNA NESTED DOUBLE PSEUDOKNOT RNA STRUCTURE	RNA BINDING PROTEIN RNA- BINDING DOMAIN
Coumpound	R(P*GP*UP*UP*GP*UP*UP* UP*UP*UP*UP*U)- CHAIN: P, Q;	SXL-LETHAL PROTEIN; CHAIN: A, B; RNA (5'- R(P*GP*UP*UP*UP*UP*UP*UP*UP*UP*UP*UP*UP*UP*UP	ALPHA SPECTRIN; CHAIN: A, B, C;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	UIA PROTEIN; CHAIN; A; HDV RIBOZYME SELF-CLEAVED; CHAIN: B;	HU ANTIGEN C; CHAIN: A;
SEQFOL D score								
PMF score		0.43	0.10	1.00	0.57	0.43	0.53	0.53
Verify score		0.08	-0.04	0.10	0.47	0.54	-0.15	0.64
Psi Blast		3e-0 <i>7</i>	0.003	4.5e-05	7.5e-07	7.5e-07	50-99	1.5e-05
END		958	835	612	956	950	614	614
STAR T AA		688	720	544	688	887	540	540
CHAI N ID		¥	A	ď	¥	Į.,	A	A
PDB ID		167£	1cun	1cvj	1cvj	lcvj	1cx0	148z
SEQ NO.		1728	1728	1728	1728	1728	1728	1728

TEIN A; A; A; A; A; A; A; A; A; A; A; A; A;	
COUMPOUND HU ANTIGEN C; CHAIN: A; SYNTAXIN BINDING PROTEIN I; CHAIN: A; SYNTAXIN IA; CHAIN: B; UI SMALL NUCLEAR RIBONUCLEOPROTEIN A; CHAIN: NULL; NUCLEOLIN RBDI; CHAIN: A; HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A; RIBONUCLEOPROTEIN PROTEIN FROM UI SMALL NUCLEAR RIBONUCLEOPROTEIN PROTEIN FROM UI SMALL NUCLEAR RIBONUCLEOPROTEIN PROTEIN FROM UI SMALL NUCLEAR RIBONUCLEOPROTEIN (SNRNP UI) INRC 3 (N-TERMINAL FRAGMENT, RESIDUES I - 95) MUTANT WITH GLN 85 INRC 4 REPLACED BY CYS (Q85C) INRC 5 POLYPYRIMIDINE TRACT- BINDING PROTEIN; CHAIN: A;	
D score	
9MF score 0.80 0.37 0.58 0.68 0.09 0.71 0.71 0.72 0.22 0.22 0.22	
Verify score 0.48	
Psi Blast 3e-05 3e-06 1.5e-05 1.5e-07 6e-07 7.5e-05	
614 614 614 614 614 614	
STAR T AA 542 709 540 560 560 886 493	
CHAI N ID A A B B	
PDB 1d9a 1d01 1dn1 1dn1 1dn1 1dn1 1dn1 1dn1 1dn1	
SEQ 10 NO: 1728 1728 1728 1728 1728 1728 1728 1728	

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PDB annotation	RIBONUCLEOPROTEIN PTB, PTB- C198, HETEROGENEOUS NUCLEAR POLYPYRIMIDINE TRACT BINDING PROTEIN, RNP, RNA, SPICING, 2 TRANSLATION		COMPLEX (RIBONUCLEOPROTEIN/RNA)	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	NUCLEAR PROTEIN UI SNRNP A PROTEIN; RNA BINDING DOMAIN, NUCLEAR PROTEIN	NUCLEAR PROTEIN UI SNRNP A PROTEIN; RNA BINDING DOMAIN, NUCLEAR PROTEIN	COMPLEX (RIBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA),
Coumpound	POLYPYRIMIDINE TRACT- BINDING PROTEIN; CHAIN: A;	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN 1SXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) 1SXL 4 (NMR, 17 STRUCTURES) 1SXL 5	UIA SPLICEOSOMAL PROTEIN; IURN S CHAIN: A, B, C; IURN 6 RNA 21MER HAIRPIN (5- (AP*AP*UP*CP*CP*AP*UP*UP* IURN 11 CHAIN: P, Q, R IURN 13	MUSASHII; CHAIN: A;	SEX-LETHAL PROTEIN; CHAIN: NULL;	UI SMALL NUCLEAR RIBONUCLEOPROTEIN A; CHAIN: NULL;	UI SMALL NUCLEAR RIBONUCLEOPROTEIN A; CHAIN: NULL;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED
SEQFOL D score								
PMF	0.10	0.82	0.40	0.03	0.75	0.39	0.43	0.75
Verify score	0.10	0.51	-0.03	-0.03	0.18	0.42	0.05	0.51
Psi Blast	1.5e-07	0.0001	0.0001	1e-06	4.5e-06	3e-05	20-99	7.5e-07
END AA		610	619	614	614	919	946	612
STAR T AA	828	540	540	260	542	542	887	525
CHAI N ID	¥		A	¥				٧
PDB ID	1qm9	[sxl	lurn	2mss	2sxl	2u1a	2ula	2up1
SEQ ID NO:	1728	1728	1728	1728	1728	1728	1728	1728

PDB annotation	HETEROGENEOUS NUCLEAR 2 RIBONUCLEOPROTEIN A1	COMPLEX (RIBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA), HETEROGENEOUS NUCLEAR 2	RIBONUCLEOPROTEIN A1 RNA BINDING DOMAIN RNA	BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2	SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3	DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2	SPLICING INHIBITOR,	DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	PLASMA PROTEIN PLASMA PROTEIN, METAL-BINDING, LIPID- BINDING					
Coumpound	TELOMETRIC DNA; CHAIN: B;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA: CHAIN: B:	SEX-LETHAL: CHAIN: A. B. C.				SEX-LETHAL; CHAIN: A, B, C;			SERUM ALBUMIN; CHAIN: A;	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN	(HOMEODOMAIN) MUTANT	WITH CYS 39 1AHD 3	REPLACED BY SER (C39S)	1AHD 4 16 STRUCTURES) 1AHD
SEQFOL D score															
PMF score		0.95	1.00	3			0.48			0.17	0.18				
Verify		0.32	0.58				0.38			-0.27	-0.46				
Psi Blast		7.5e-07	16-05				3e-07			0.0015	1.1e-28				
END		947	612	1			856			336	347				
STAR T AA		688	542	ŧ			688			199	297				
CHAI		4	4	:			Y			4	Д,				
PDB ID		2up1	3sxl	3			3sxl			le7f	lahd				
SEQ NO:		1728	1728				1728			1730	1733				

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PDB annotation		PROTEIN/DNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA	TRANSCRIPTION/DNA ULTRABITHORAX; PBX PROTEIN; DNA BINDING, HOMEODOMAIN, HOMEOTIC PROTEINS, DEVELOPMENT, 2 SPECIFICITY	COMPLEX (DNA-BINDING PROTEIN/DNA) DNA-BINDING PROTEIN, DNA, PAIRED BOX, TRANSCRIPTION 2 REGULATION	COMPLEX (DNA-BINDING PROTEIN/DNA) DNA-BINDING PROTEIN, DNA, PAIRED BOX, TRANSCRIPTION 2 REGULATION				
Coumpound	3	HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	ULTRABITHORAX HOMEOTIC PROTEIN IV; CHAIN: A; HOMEOBOX PROTEIN EXTRADENTICLE; CHAIN: B; DNA (5- CHAIN: C; DNA (5'- CHAIN: D;	PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F	PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F	TRANSCRIPTION REGULATION TRANSCRIPTION FACTOR LFBI (HOMEODOMAIN) 1LFB 3	GENE REGULATING PROTEIN REPRESSOR PROTEIN FROM BACTERIOPHAGE 434 (DNA- BINDING IPRA 3 DOMAIN, RESIDUES 1-69) (NMR, 20 STRUCTURES) IPRA 4	GENE REGULATING PROTEIN REPRESSOR (AMINO- TERMINAL DOMAIN) (R1-69) 1R69 4	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT
SEQFOL D score									
PMF score		0.07	0.46	0.92	0.00	0.99	0.51	0.78	0.19
Verify score		-0.02	-0.12	-0.04	0.38	0.61	0.08	0.15	0.09
Psi Blast		6.4e-24	6.4e-24	3.2e-23	9.6e-22	6e-24	0.00015	0.0003	1.6e-26
END		343	340	341	339	336	205	205	347
STAR T AA		271	270	266	267	271	173	173	273
CHAI N ID		A	∢	V	æ				
PDB ID		1672	168i	101	<u>1</u>	11fb	Ipra	1r69	Isan
SEQ NO:		1733	1733	1733	1733	1733	1733	1733	1733

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PDB annotation		TRANSCRIPTION REGULATION GENE REGULATING PROTEIN, TRANSCRIPTION REGULATION		COMPLEX (DNA-BINDING PROTEIN'DNA) HD; HOMEODOMAIN, COMPLEX (DNA-BINDING PROTEIN'DNA)		·	PROTEINDNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA	TRANSCRIPTIONDNA ULTRABITHORAX; PBX PROTEIN; DNA BINDING, HOMEODOMAIN, HOMEOTIC PROTEINS, DEVELOPMENT, 2 SPECIFICITY	COMPLEX (DNA-BINDING PROTEIN/DNA) DNA-BINDING
Coumpound	WITH CYS 39 ISAN 3 REPLACED BY SER AND RESIDUES 1-6 DELETED (C39S,DEL 1-6) ISAN 4 (NMR, 20 STRUCTURES) ISAN 5	PHAGE 434 CRO PROTEIN; CHAIN: NULL;	GENE REGULATING PROTEIN CRO PROTEIN 2CRO 4	ANTENNAPEDIA PROTEIN; CHAIN: A, B; DNA; CHAIN: C, D, E, F;	i	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 1AHD 3 REPLACED BY SER (C39S) COMPLEX WITH DNA (NMR, 1AHD 4 16 STRUCTURES) 1AHD 5	HOMEOBOX PROTEIN HOX-BI; CHAIN: A; PBXI; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	ULTRABITHORAX HOMEOTIC PROTEIN IV; CHAIN: A; HOMEOBOX PROTEIN EXTRADENTICLE; CHAIN: B; DNA (5: CHAIN: C; DNA (5: CHAIN: D;	PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F
SEQFOL D score									
PMF score	: ! !	0.17	0.29	0.04		0.18	0.07	0.28	0.92
Verify score		-0.16	-0.59	-0.27		-0.46	-0.02	-0.31	-0.04
Psi Blast		0.0003	0.0003	3.2e-26		1.6e-28	1.6e-24	86-24	1.6e-23
END AA		205	205	341		347	343	340	341
STAR T AA		173	173	271		267	27.1	27.1	266
CHAI N ID				٧		а	4	¥	Ą
PDB ID		lzug	2сто	9ant	_	1ahd	1b72	168i	161
SEQ NO.		1733	1733	1733		1734	1734	1734	1734

PDB annotation	PROTEIN, DNA, PAIRED BOX, TRANSCRIPTION 2 REGULATION	COMPLEX (DNA-BINDING PROTEIN/DNA) DNA-BINDING PROTEIN, DNA, PAIRED BOX, TRANSCRIPTION 2 REGULATION												****				GENE REGULATION GENERAL GENERA	IKANSCKIPTION KEGULATION		COMPLEX (DNA-BINDING	PROTEIN/DNA) HD;
Coumpound		PAIRED PROTEIN; CHAIN: A, B, C; DNA; CHAIN: D, E, F	TRANSCRIPTION REGULATION TRANSCRIPTION FACTOR LFB1 (HOMEODOMAIN) 1LFB 3	GENE REGULATING PROTEIN REPRESSOR PROTEIN FROM	BACTERIOPHAGE 434 (DNA- BINDING 1PRA 3 DOMAIN,	RESIDUES 1-69) (NMR, 20 STRUCTURES) 1PRA 4	GENE REGULATING PROTEIN	REPRESSOR (AMINO-	TERMINAL DOMAIN) (RI-69)	DNA-BINDING PROTEIN	ANTENNAPEDIA PROTEIN	(HOMEODOMAIN) MUTANT	WITH CYS 39 ISAN 3	REPLACED BY SER AND	RESIDUES 1-6 DELETED	(C39S,DEL 1-6) 1SAN 4 (NMR, 20	STRUCTURES) ISAN 5	PHAGE 434 CRO PROTEIN; CHAIN: NULL;		GENE REGULATING PROTEIN CRO PROTEIN 2CRO 4	ANTENNAPEDIA PROTEIN;	CHAIN: A, B; DNA; CHAIN: C,
SEQFOL D score																						
PMF		1.00	0.99	0.51			0.78			0.19								0.17		0.29	0.04	
Verify score		0.38	0.61	0.08			0.15			0.09								-0.16	Ì	-0.59	-0.27	
Psi Blast		8e-22	6e-24	0.00015			0.0003			6.4e-26								0.0003		0.0003	8e-26	
END		339	336	205			205			347								205		205	341	
STAR T AA		267	271	173			173			273								173		173	271	
CHAI N ID		a																			Ą	
age GI		1ਉ1	1110	1pra			1r69			Isan								Sm21		2cro	9ant	
SEQ ID NO:		1734	1734	1734			1734			1734								1734		1734	1734	

PDB annotation	HOMEODOMAIN, COMPLEX (DNA- BINDING PROTEIN/DNA)	MUSCLE PROTEIN CTNC; CARDIAC, MUSCLE PROTEIN, REGULATORY, CALCIUM BINDING	MUSCLE PROTEIN CTNC; CARDIAC, MUSCLE PROTEIN, REGULATORY, CALCIUM BINDING	MUSCLE PROTEIN CTNC; CARDIAC, MUSCLE PROTEIN, REGULATORY, CALCIUM BINDING	CALCTUM-BINDING PROTEIN CALMODULIN CERTUM TRIC- DOMAIN, RESIDUES I - 75; CERTUM- LOADED, CALCTUM-BINDING PROTEIN	CALCIUM-BINDING CNTNC; CALCIUM-BINDING, REGULATION, TROPONIN C, CARDIAC MUSCLE 2 CONTRACTION	HYDROLASE CALCINEURIN; HYDROLASE, PHOSPHATASE, IMMUNOSUPPRESSION	MUSCLE CONTRACTION MUSCLE CONTRACTION, CALCIUM- ACTIVATED, TROPONIN, E-F HAND 2 CALCIUM-BINDING PROTEIN	CALCIUM-BINDING PROTEIN SNTNC; CALCIUM-BINDING, REGULATION, TROPONIN C, SKELETAL MUSCLE, 2 CONTRACTION	MUSCLE PROTEIN MDE; MUSCLE
Coumpound	D, E, F;	TROPONIN C; CHAIN: NULL;	TROPONIN C; CHAIN: NULL;	TROPONIN C; CHAIN: NULL;	CALMODULIN; CHAIN: NULL;	CARDIAC N-TROPONIN C; CHAIN: NULL;	SERNE/THREONINE PHOSPHATASE 2B; CHAIN: A, B;	TROPONIN C; CHAIN: A, B;	N-TROPONIN C; CHAIN: NULL;	MYOSIN; CHAIN: A, B, C, D, E,
SEQFOL D score			82.97		75.36	61.36		70.90	71.63	57.30
PMF		90.0		0.70			-0.01			
Verify score		-0.11		0.17			0.08			
Psi Blast		4.8e-30	1.4e-38	1.4e-38	1.16-29	6.4e-23	3.2e-20	3.2e-26	8e-27	4.8e-34
END		101	170	169	104	109	101	106	109	170
STAR T AA		1	23	25	30	22	_	26	20	33
CHAI N ID							æ	¥		В
808 01		laj4	1aj4	laj4	1ak8	lap4	laui	lavs	1blg 	1br1
SEQ NO.		1738	1738	1738	1738	1738	1738	1738	1738	1738

PDB annotation		PROTEIN	CALCIUM BINDING CALCIUM BINDING																												CALCIUM-BINDING PROTEIN	CALMODULIN APO TR2C-DOMAIN; ICMF 9	STRUCTURAL PROTEIN HELIX-
Coumpound		F, G, H;	CALCIUM-BINDING PROTEIN; CHAIN: NULL;	CALCIUM-BINDING PROTEIN	CALMODULIN COMPLEXED	WITH CALMODULIN-BINDING	DOMAIN OF ICDM 3	CALMODULIN-DEPENDENT	PROTEIN KINASE II 1CDM 4	CALCIUM-BINDING PROTEIN	CALMODULIN COMPLEXED	WITH CALMODULIN-BINDING	DOMAIN OF ICDM 3	CALMODULIN-DEPENDENT	PROTEIN KINASE II 1CDM 4	CALCIUM-BINDING PROTEIN	CALMODULIN COMPLEXED	WITH CALMODULIN-BINDING	DOMAIN OF ICDM 3	CALMODULIN-DEPENDENT	PROTEIN KINASE II ICDM 4	CALCIUM-BINDING PROTEIN	CALMODULIN (VERTEBRATE)	ICLL 3	CALCIUM-BINDING PROTEIN	CALMODULIN (VERTEBRATE)	ICLL 3	CALCIUM-BINDING PROTEIN	CALMODULIN (VERTEBRATE)	ICLL 3	CALMODULIN (VERTEBRATE);	ICMF 6 CHAIN: NULL; ICMF 7	CARDIAC TROPONIN C;
SEQFOL D score			50.72							85.63	٠																	89.82			68.52		
PMF				0.82												0.92						0.40			0.81								0.28
Verify				0.01												80.0						- 60.0-			-0.02								0.00
Psi Blast			3.2e-11	8e-35						1.4e-47						1.4e-47						3.2e-35			9.6e-53			9.6e-53			7.5e-23		4.8e-29
END			103	102						158						691						701			169			170			104		101
STAR			2	_						33						33						_			33			33			33		_
CHAI				∀						¥						A																	4
PDB CI			1bu3	Icdm						1cdm						lodm						Icll			Icil			loll			1cmf		1dtl
SEQ	NO:		1738	1738						1738						1738						1738			1738			1738			1738		1738

PDB annotation		TURN-HELIX	STRUCTURAL PROTEIN HELIX- TURN-HELIX	METAL TRANSPORT CALMODULIN, HIGH RESOLUTION, DISORDER	METAL TRANSPORT CALMODULIN, HIGH RESOLUTION, DISORDER							CALCIUM-REGULATED MUSCLE	CONTRACTION MUSCLE	CONTRACTION, CALCIUM-	BINDING, TROPONIN, E.F HAND, 2	OPEN CONFORMATION	REGULATORY DOMAIN, CALCIUM-	REGULATED 3 MUSCLE	CONTRACTION CONTRACTION	CALCIUM-REGULATED MUSCLE	CONTRACTION MOSCLE	CONTINUE TO THE PARTY OF THE PA	DENDING, IROPONIN, E-F HAND, 2	REGULATORY DOMAIN, CALCIUM-	REGULATED 3 MUSCLE	CONTRACTION	CALCTUM-REGULATED MUSCLE CONTRACTION MUSCLE
Coumpound		CHAIN: A;	CARDIAC TROPONIN C; CHAIN: A;	CALMODULIN; CHAIN: A;	CALMODULIN; CHAIN: A;	CALCIUM BINDING DARVAT BITMIN (PIKE PI 5.0)	ALPHA COMPONENT)	COMPLEXED WITH IPVAA 1	TWO CALCIUM IONS	(SYNCHKUIKON X-KAY DIFFRACTION) IPVAA 2	CALCIUM-BINDING PROTEIN ALPHA-PARVALBUMIN 1RTP 3	TROPONIN C; CHAIN: NULL;							The same of any or any	IKOPONIN C; CHAIN: NOLL;							TROPONIN C; CHAIN: NULL;
SEQFOL	D score					55.26					55.44								22.00	89.65							
PMF	score		0.72	08.0	0.89							0.35															96.0
Verify	score		0.26	-0.11	0.03							-0.10															-0.13
Psi Blast			9.66-36	3.2e-34	4.8e-51	1.6e-15					3.2e-16	1.1e-30							;	1.06-41							1.6e-41
END	AA		691	101	169	104					104	101							9	601							169
STAR	TAA		31		31	1					7	1							[47							33
CHAI	9 Z		¥	¥	∢ _	A					1																
PDB	9		114II	lexr	lexr	1pva					1rtp	Itcf							3.41	1101							Itcf
SEQ	Αÿ		1738	1738	1738	1738					1738	1738							1730	86/-		_					1738

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PDB annotation	CONTRACTION, CALCIUM- BINDING, TROPONIN, E-F HAND, 2 OPEN CONFORMATION REGULATORY DOMAIN, CALCIUM- REGULATED 3 MUSCLE CONTRACTION	CALCIUM-BINDING PROTEIN EF- HAND 1TNX 14	CALCIUM-BINDING PROTEIN EF- HAND 1TNX 14	CALCIUM-BINDING PROTEIN EF- HAND 1TNX 14						CALMODULIN, CALCTUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCTUM-BINDING PROTEIN/PEPTIDE)	CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2
	CONTRACTION BINDING, TROP OPEN CONFORI REGULATORY I REGULATED 3 I CONTRACTION	CALCIUM-BINI HAND 1TNX 14	CALCIUM-BINI HAND 1TNX 14	CALCIUM-BINI HAND 1TNX 14						CALMODULIN, CAI HELIX-LOOP-HELIS COMPLEX(CALCIU PROTEIN/PEPTIDE)	CALMODU HELIX-LO
Coumpound		TROPONIN C; 1TNX 4 CHAIN: NULL; 1TNX 5	TROPONIN C; 1TNX 4 CHAIN: NULL; 1TNX 5	TROPONIN C; 1TNX 4 CHAIN: NULL; 1TNX 5	CONTRACTILE SYSTEM PROTEIN TROPONIN C 1TOP 3	CONTRACTILE SYSTEM PROTEIN TROPONIN C 1TOP 3	CONTRACTILE SYSTEM PROTEIN TROPONIN C 1 TOP 3	CALCIUM BINDING PROTEIN CALMODULIN (TR=2=C\$ FRAGMENT COMPRISING RESIDUES 78 - 148 1TRC 3 OF THE INTACT MOLECULE) 1TRC	MUSCLE PROTEIN TROPONIN C (TRIC FRAGMENT) (APO FORM) (NMR, 1 STRUCTURE) 1TRF 3	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	CALMODULIN; CHAIN: A; RS20; CHAIN: B;
SEQFOL D score			84.53			86.96		62.97	66.58		90.09
PMF score		0.41		0.94	0.30		1.00			0.36	
Verify score		-0.26		0.17	-0.20		0.13			-0.06	
Psi Blast		9.6e-34	1.6e-38	1.6e-38	3.2e-32	4.8e-42	4.8e-42	. 8e-22	3.2e-26	9.6e-36	1.1e-51
END		101	691	169	101	169	169	103	106	104	170
STAR T AA			24	33	-	20	33	36	31	-	31
CHAI N ID				,				⋖		V .	4
PDB CI		1tnx	1tmx	1tmx	Itop	ltop	ltop	ltrc	1trf	lvrk	1vrk
SEQ B Sign		1738	1738	1738	1738	1738	1738	1738	1738	1738	1738

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PDB annotation	COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)	CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)	MUSCLE PROTEIN MYOSIN, CALCIUM BINDING PROTEIN, MUSCLE PROTEIN	MUSCLE PROTEIN MYOSIN, CALCIUM BINDING PROTEIN, MUSCLE PROTEIN	CALCIUM-BINDING PROTEIN CTNC; CARDIAC, MUSCLE, REGULATORY, CALCIUM-BINDING PROTEIN				TRANSFERASE ATP:AMP- PHOSPHOTRANSFERASE, TRANSFERASE		
Coumpound		CALMODULIN; CHAIN: A; RS20; CHAIN: B;	SCALLOP MYOSIN; CHAIN: A, B, C;	SCALLOP MYOSIN; CHAIN: A, B, C;	TROPONIN C; CHAIN: NULL;	CALCIUM BINDING CALCIUM- BINDING PARVALBUMIN (\$P*I=4.25) 4CPV 3		TRANSFERASE URIDYLATE KINASE (E.C.2.7.4) COMPLEXED WITH ADP AND AMP 1UKZ 3	ADENYLATE KINASE; CHAIN: A, B;	TRANSFERASE(PHOSPHOTRA NSFERASE) ADENYLATE KINASE (E.C.2.7.4.3) 3ADK 4	TRANSFERASE URIDYLATE KINASE (E.C.2.7.4) COMPLEXED WITH ADP AND AMP IUKZ 3
SEQFOL D score			64.97	54.16	52.43	51.70					
PMF score		0.95						0.07	0.13	0.16	0.07
Verify score		0.15						-0.05	-0.17	-0.25	-0.05
Psi Blast		1.1e-51	7.5e-26	1.1e-25	8e-10	1.36-11		0.0006	0.0001	0.0075	90000
END		169	170	171	104	103		463	287	495	463
STAR T AA		33	33	33	31	9		362	362	362	362
CHA1 N ID		A	В	၁					¥		
PDB TD		lvrk	1wdc	1wdc	3ctn	4cpv		Iukz	1zak	3adk	lukz
SEQ NO:	,	1738	1738	1738	1738	1738		1745	1745	1745	1746

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PDB annotation	TRANSFERASE ATP:AMP- PHOSPHOTRANSFERASE, TRANSFERASE		TRANSFERASE BRUTON'S AGAMMAGLOBULINEMIA TYROSINE KINASE, BTK; TRANSFERASE, PH DOMAIN, BTK MOTIF, ZINC BINDING, X-LINKED 2 AGAMMAGLOBULINEMIA, TYROSINE-PROTEIN KINASE	SIGNALING PROTEIN DAPP1, PHISH, BAM32; PLECKSTRIN, 3-PHOSPHOINOSITIDES, INOSITOL TETRAKISPHOSPHATE 2 SIGNAL TRANSDUCTION PROTEIN, ADAPTOR PROTEIN	SIGNALING PROTEIN DAPP1, PHISH, BAM32; PLECKSTRIN, 3-PHOSPHONOSITIDES, INOSITOL TETRAKISPHOSPHATE 2 SIGNAL TRANSDUCTION PROTEIN, ADAPTOR PROTEIN	SIGNALING PROTEIN ARFI GUANINE NUCLEOTIDE EXCHANGE FACTOR AND PH DOMAIN	HYDROLASE METALLO-BETA- LACTAMASE, ANTIBIOTIC RESISTANCE, BINUCLEAR 2 ZINC, HYDROLASE
Coumpound	ADENYLATE KINASE; CHAIN: A, B;	TRANSFERASE(PHOSPHOTRA NSFERASE) ADENYLATE KINASE (E.C.2.7.4.3) 3ADK 4	BRUTON'S TYROSINE KINASE; CHAIN: A, B;	DUAL ADAPTOR OF PHOSPHOTYROSINE AND 3- CHAIN: A;	DUAL ADAPTOR OF PHOSPHOTYROSINE AND 3- CHAIN: A;	GRP1; CHAIN: A;	PENICILLINASE; CHAIN: A;
SEQFOL D score							
PMF score	0.13	0.16	0.04	0.83	0.99	0.75	-0.14
Verify score	-0.17	-0.25	-0.50	0.14	0.25	-0.02	0.08
Psi Blast	0.0001	0.0075	90-99	36-15	3e-16	7.5e-12	1.6e-14
END AA	287	495	142	142.	142	142	178
STAR T AA	362	362	53	55	48	52	3
CHAI N ID	4		V	¥	V	¥	A
PDB ID	1zak	3adk	16tk	Ifao	1168	1fgy	Isml
SEQ ID NO:	1746	1746	1749	1749	1749	1749	1750

PDB annotation	HYDROLASE HYDROLASE, BETA- LACTAMASE, ANTIBIOTIC, METALLOENZYME	OXIDOREDUCTASE OXIDOREDUCTASE, METALLOPROTEIN, FE(II)	OXIDOREDUCTASE OXIDOREDUCTASE, METALLOPROTEIN, FE(II) COMPLEX, CATECHOL	HYDROLASE PHOSPHOLIPASE C; ZINC PHOSPHOLIPASE C, GANGRENE DETERMINANT, C2 DOMAIN, CA 2 AND MEMBRANE BINDING, HYDROLASE	COMPLEX (HYDROLASE/COFACTOR) TRIACYLGLYCEROL LIPASE; COMPLEX (HYDROLASE/COFACTOR), LIPID DEGRADATION	OXIDOREDUCTASE 15LOX; OXIDOREDUCTASE, 15LO_DEPOT2	OXIDOREDUCTASE 15LOX; OXIDOREDUCTASE, 15LO DEPOT2	DIOXYGENASE L-1; DIOXYGENASE, LIPOXYGENASE, METALLOPROTEIN, FATTY ACIDS	DIOXYGENASE L-1; DIOXYGENASE, LIPOXYGENASE, METALLOPROTEIN, FATTY ACIDS	
Coumpound	METALLO BETA-LACTAMASE II; CHAIN: A, B;	LIPOXYGENASE-3; CHAIN: NULL;	LIPOXYGENASE-3; CHAIN: NULL;	ALPHA-TOXIN; CHAIN: NULL;	TRIACYLGLYCEROL ACYL- HYDROLASE; CHAIN: A, C; COLIPASE; CHAIN: B, D	15-LIPOXYGENASE; CHAIN: NULL;	15-LIPOXYGENASE; CHAIN: NULL;	LIPOXYGENASE-1; CHAIN: NULL;	LIPOXYGENASE-1; CHAIN: NULL;	
SEQFOL D score		253.58					482.93	231.83		
PMF score	-0.05		1.00	0.04	0.45	00.1			1.00	
Verify score	0.18		0.36	-0.01	0.46	0.41			0.18	
Psi Blast	1.6e-14	0	0	1.6e-20	0.0045	0	0		0	
END	170	711	711	11	66	711	711	711	711	
STAR T AA	E .	-	35	7	4	2	2	-	46	
CHAI N ID	¥				¥					
PDB CI	2bc2	lbyt	Ibyt	[ca]	1eth	1lox	llox	1yge	1yge	
SEQ B B	1750	1751	1751	1751	1751	1751	1751	1751	1751	

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PDB annotation	SIGNALING PROTEIN GTP-BINDING PROTEIN RHOA, GTPASE RHOA; RHO GDI 1; RHO GTPASE, G- PROTEIN, SIGNALING PROTEIN	SIGNALING PROTEIN GTP-BINDING PROTEIN RHOA, GTPASE RHOA; RHO GDI I; RHO GTPASE, G- PROTEIN, SIGNALING PROTEIN	CELL CYCLE CDC42; RHO GDI 1; GTP-BINDING PROTEIN, CDC42, RHOGDI, X-RAY	CELL CYCLE CDC42; RHO GDI 1; GTP-BINDING PROTEIN, CDC42, RHOGDI, X-RAY	· !			PROTEIN/DNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA
Coumpound	TRANSFORMING PROTEIN RHOA; CHAIN: A, C; RHO GDP DISSOCIATION INHIBITOR ALPHA; CHAIN: E, F;	TRANSFORMING PROTEIN RHOA; CHAIN: A, C; RHO GDP DISSOCIATION INHIBITOR ALPHA; CHAIN: E, F;	GTP-BINDING PROTEIN; CHAIN: A; GDP-DISSOCIATION INHIBITOR 1; CHAIN: B;	GTP-BINDING PROTEIN; CHAIN: A; GDP-DISSOCIATION INHIBITOR I; CHAIN: B;	!	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 1AHD 3 REPLACED BY SER (C39S) COMPLEX WITH DNA (NMR, 1AHD 4 16 STRUCTURES) 1AHD 5	DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN (HOMEODOMAIN) MUTANT WITH CYS 39 1AHD 3 REPLACED BY SER (C39S) COMPLEX WITH DNA (NMR, 1AHD 4 16 STRUCTURES) 1AHD 5	HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;
SEQFOL D score						70.63		
PMF score	1.00	1.00	1.00	1.00			0.90	0.98
Verify score	0.50	0.33	0.48	0.48		·	-0.12	-0.15
Psi Blast	4.5e-66	9.6e-70	6e-76	1.6e-78		6.4e-36	6.4e-36	3e-31
END	162	177	162	180		98	88	81
STAR	24	24	'n	5		. 19	20	21
CHAI N ID	ம	កា	æ	В		ъ	ď	Ą
PDB ID	1cc0	1cc0	1doa	ldoa		lahd	lahd	1672
SEQ EQ	1753	1753	1753	1753		1757	1757	1757

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PDB annotation	PROTEIN/DNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA	PROTEIN/DNA HOMEODOMAIN, DNA, COMPLEX, DNA-BINDING PROTEIN, PROTEIN/DNA	TRANSCRIPTION/DNA ULTRABITHORAX; PBX PROTEIN; DNA BINDING, HOMEODOMAIN,	HOMEOTIC PROTEINS, DEVELOPMENT, 2 SPECIFICITY	TRANSCRIPTION/DNA	ULTRABITHORAX; PBX PROTEIN; DNA BINDING HOMEODOMAIN	HOMEOTIC PROTEINS,	DEVELOPMENT, 2 SPECIFICITY											
Coumpound	HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	HOMEOBOX PROTEIN HOX-B1; CHAIN: A; PBX1; CHAIN: B; DNA CHAIN: D; DNA CHAIN: E;	ULTRABITHORAX HOMEOTIC PROTEIN IV; CHAIN: A; HOMEOBOX PROTEIN	EXTRADENTICLE; CHAIN: B; DNA (5'- CHAIN: C; DNA (5'- CHAIN: D;	ULTRABITHORAX HOMEOTIC	PROTEIN IV; CHAIN: A; HOMEOBOX PROTEIN	EXTRADENTICLE; CHAIN: B;	DNA (5'- CHAIN: C; DNA (5'- CHAIN: D;	DNA-BINDING FUSHI TARAZU PROTEIN (HOMEODOMAIN)	(NMR, 20 STRUCTURES) IFTZ 3	DNA-BINDING FUSHI TARAZU PROTEIN (HOMEODOMAIN)	(NMR, 20 STRUCTURES) 1FTZ 3	DNA-BINDING PROTEIN OCT-1 (POU DOMAIN) 10CT 3	DNA-BINDING PROTEIN	ANTENNAPEDIA PROTEIN	WITH CYS 39 1SAN 3	REPLACED BY SER AND	RESIDUES 1-6 DELETED	(C39S,DEL 1-6) ISAN 4 (NMR, 20 STRUCTURES) ISAN 5
SEQFOL D score		64.24	64.34	-					66.44					69.59					
PMF score	0.99				0.82						0.81		0.23						
Verify score	0.19				-0.14						-0.01		-0.70						
Psi Blast	3.2e-28	3e-31	6.4e-31		6.4e-31				4.8e-32		4.8e-32		3e-31	1.6e-33					
END	81	81	77	_	78				98		82		62	98					
STAR T AA	24	6	20		2				18		61		_	25					
CHAI N ID	4	Ą	¥		A	-							၁						
PDB ID	1972	1672	1 b 8i		1881				Ifiz		1ftz		loct	Isan		_		_	
SEQ ID NO:	1757	1757	1757		1757				1757		1757		. 1757	1757					

PDB annotation							COMPLEX (DNA-BINDING	PROTEIN/DNA) HD;	HOMEODOMAIN, COMPLEX (DNA-BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING	PROTEIN/DNA) HD;	HOMEODOMAIN, COMPLEX (DNA-	CANADIAN TANDAMA	LIPOCALIN LIPOCALIN,	OLFACTION	SUGAR BINDING PROTEIN NGAL; NEUTROPHIL, NGAL, LIPOCALIN	ALLERGEN LIPOCALIN, BETA BARREL								ODORANT-BINDING PROTEIN OBP	OLFACTION, NOSE, TRANSPORT, LIPOCALIN, ODORANT-BINDING 2
Coumpound		DNA-BINDING PROTEIN ANTENNAPEDIA PROTEIN	(HOMEODOMAIN) MULANI	REPLACED BY SER AND	RESIDUES 1-6 DELETED	(C39S,DEL 1-6) ISAN 4 (NMR, 20 CTR11CTI IRES) ISAN 5	ANTENNAPEDIA PROTEIN;	CHAIN: A, B; DNA; CHAIN: C,	D, E, F;	ANTENNAPEDIA PROTEIN;	CHAIN: A, B; DNA; CHAIN: C,	D, E, F;		ODORANT BINDING PROTEIN;	CHAIN: A, B;	HUMAN NEUTROPHIL GELATINASE; CHAIN: A, B;	ALLERGEN EQU C I; CHAIN: A;	PHEROMONE-BINDING MAJOR	URINARY PROTEIN COMPLEX	WITH 2-(SEC-BUTYL) IMUP 3 THIAZOLINE IMUP 4	PHEROMONE-BINDING MAJOR	URINARY PROTEIN COMPLEX	WITH 2-(SEC-BUTYL) IMUP 3	THIAZOLINE IMUP 4	ODORANT-BINDING PROTEIN;	CHAIN: A, B;
SEQFOL	D score									68.97											64.35					
PMF	score	86.0					1.00							0.86	, ,	1.00	0.95	1.00							-0.02	
Verify	score	-0.17					-0.13							0.63		99.0	0.90	0.78							0.19	
Psi Blast		1.6e-33					1.6e-33	-		1.6e-33				3e-35		4.5e-47	1.4e-38	6e-37			6e-37				9e-36	
END	A.A	82					79			79				169		169	691	168			168				172	
STAR	1 AA	26					24			24				38		20	30	23			25				30	
CHAI	U N						V			¥				V		٧	Ą								Ψ.	
PDB	n i	lsan					9ant			9ant				1a3y		1dfv	lew3	lmup			lmup				1obp	
SEQ	g ö	1757					1757			1757				1758		1758	1758	1758			1758				1758	

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PDB annotation	PROTEIN	SUGAR BINDING PROTEIN NGAL; NEUTROPHIL LIPOCALIN, SIGNAL PROTEIN, GLYCOPROTEIN		LIPID BINDING PROTEIN A2U- GLOBULIN, LIPID BINDING PROTEIN	LIPID BINDING PROTEIN A2U- GLOBULIN, LIPID BINDING PROTEIN	LIPID BINDING PROTEIN A2U- GLOBULIN, LIPID BINDING PROTEIN	COMPLEX (VIRAL CAPSID/IMMUNOGLOBULIN) HIV-1 CA, HIV CA, HIV P24, P24; FAB, FAB	LIGHT CHAIN, FAB HEAVY CHAIN COMPLEX (VIRAL	CAPSID/IMMUNOGLOBULIN), HIV, CAPSID PROTEIN, 2 P24	COMPLEX (MHC/VIRAL	HEAVY CHAIN; CLASS I MHC, T-	CELL RECEPTOR, VIRAL PEPTIDE, 2	COMPLEX (MHC/VIRAL	PEPTIDE/RECEPTOR	IMMUNOGLOBULIN HUMAN FAB,	ANTI-TETANUS TOXOID, HIGH	AFFINITY, CRYSTAL Z PACKING MOTE, PROGRAMMING
Coumpound		NEUTROPHIL GELATINASE; CHAIN: A;	RETINOL TRANSPORT RETINOL BINDING PROTEIN IRBP 3	ALPHA-2U-GLOBULIN; CHAIN: A, B, C, D	ALPHA-2U-GLOBULIN; CHAIN: A, B, C, D	ALPHA-2U-GLOBULIN; CHAIN: A, B, C, D	HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 CAPSID CHAIN: A, B; ANTIBODY FAB25.3	FRAGMENT; CHAIN: H, K, L, M;		HLA-A 0201; CHAIN: A; BETA-2	TAX PEPTIDE; CHAIN: C; T	CELL RECEPTOR ALPHA;	CHAIN: D; T CELL RECEPTOR	BETA; CHAIN: E;	FAB B7-15A2; CHAIN: L, H;		
SEQFOL D score						78.30				295.76							
PMF score		1.00	-0.09	0.99	1.00	•	00'1								1.00		
Verify score		0.83	0.14	. 69.0	0.91		0.30								0.48		
Psi Blast		4.5e-40	le-35	1.3e-36	1.5e-37	1.5e-37	1.6e-94			4.8e-64					1.6e-95		•
END AA		169	168	169	691	169	249			263					252		
STAR T AA		17	26	25	25	25	21			22					22		
CEAI N ID		¥		¥	¥	∢	н			田					H		
PDB ID		lqqs	1rbp	2a2u	2a2u	2a2u	 lafv			lao7					Iaqk		
SEQ NO.		1758	1758	1758	1758	1758	1759			1759					1759		

PDB annotation	PROPENSITY TO CRYSTALLIZE, 3 IMMUNOGLOBULIN	COMPLEX (MHC/VIRAL PEPTIDE/RECEPTOR) HLA A2 HFA VY CHAIN: COMPLEY	(MHC/VIRAL PEPTIDE/RECEPTOR)	COMPLEX (MHC/VIRAL PEPTIDE/RECEPTOR) HLA A2	HEAVY CHAIN; COMPLEX (MHC/VIRAL PEPTIDE/RECEPTOR)					CATALYTIC ANTIBODY	CATALYTIC ANTIBODY, ESTER HYDROLYSIS, ESTEROLYTIC, FAB, 2 IMMUNOGLOBULIN					-	IMMUNOGLOBULIN INTACT IMMUNOGLOBULIN V REGION C
Coumpound		HLA-A 0201; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B; TAX PEPTINE: CHAIN: C: T	CELL RECEPTOR ALPHA; CHAIN: D; T CELL RECEPTOR BETA; CHAIN: E;	HLA-A 0201; CHAIN: A; BETA-2 MICROGLOBULIN; CHAIN: B;	TAX PEPTIDE; CHAIN: C; T CELL RECEPTOR ALPHA;	CHAIN: D; T CELL RECEPTOR BETA; CHAIN: E;	IMMUNOGLOBULIN 3D6 FAB 1DFB 3	IMMUNOGLOBULIN FAB FRAGMENT OF HUMANIZED	ANTIBODY 4D5, VERSION 4 IFVD 3	IMMUNOGLOBULIN 6D9;	, , , , , , , , , , , , , , , , , , ,	COMPLEX	PROTEIN) IGGI FAB	FRAGMENT COMPLEXED	WITH PROTEIN G (DOMAIN III)	STREPTOCOCCUS 11GC 15	IGG2A INTACT ANTIBODY - MAB231; CHAIN: A, B, C, D
SEQFOL D score				386.70			:										
PMF score		1.00					1.00	1.00		1.00		00.1					0.99
Verify score		0.74					0.30	0.41		0.47		0.21					0.42
Psi Blast		1.2e-98		1.2e-98			9.6e-94	6.4e-96		4.8e-95		1.6e-95					8e-99
END		263		263			252	252		252		252					263
STAR T AA		22		22			21	- 21		21		22					21
CHAI N ID		ច		3			н_	М		H		Н					മ
PDB ID		ZP91		ZP91			1dfb	1fvd		1hyx		lige					ligt
SEQ ID NO:		1759		1759			1759	1759		1759		1759					1759

Coumpound PDB annotation	REGION, IMMUNOGLOBULIN	-LAMBDA=); IMMUNOGLOBULIN, IMMUNOGLOBULIN,	MONOCLONAL ANTIBODY F11.2.32; CHAIN: L, H, M, N; HIV-1 PROTEASE PEPTIDE; CHAIN: P, Q; HIV1 PROTEASE, ENZYME 2 INHIBITION, COMPLEX (IMMUNOGLOBULIN/PEPTIDE) (IMMUNOGLOBULIN/PEPTIDE)	BLOOD COAGULATION BLOOD COAGULATION, SERINE FACTOR VIIA, CHAIN: L, H; PROTEASE, COMPLEX, CO-FACTOR, COTTON ENTRY IN PRINTED TO SERIOR PROTECTION ENTRY IN PRINTED TO SERIOR PROTECTION ENTRY IN PRINTED TO SERIOR PROTECTION ENTRY IN PRINTED TO SERIOR PROTECTION ENTRY IN PRINTED TO SERIOR PROTECTION ENTRY IN PRINTED TO SERIOR PROTECTION ENTRY IN PRINTED TO SERIOR PROTECTION ENTRY IN PROT	ģ		AGGLUTININ ISOLECTIN VI; PLANT PROTEIN TWO	HOMOLOGOUS HEVEIN-LIKE DOMAINS	╀	VIAGGLUTININ ISOLECTIN V; LECTIN, HEVEIN DOMAIN, UDA, CHAIN: A: SUPERANTIGEN		I/AGGLUTININ ISOLECTIN V/ LECTIN, HEVEIN DOMAIN, UDA,	SUPERANTIGEN, SACCHARIDE	TUMOR NECROSIS FACTOR SIGNALLING PROTEIN BINDING	_			æ
		NIG9 (IGGI=LAMBDA=); CHAIN: L, H;	MONOCLONA F11.2.32; CHAI HIV-1 PROTEA CHAIN: P, Q;	BLOOD COAGULATION FACTOR VIIA; CHAIN: 1	CHAIN: T. U. I	CHLOROMETI (DFFRCMK) W	AGGLUTININ	CHAIN: A	AGGLUTININ ISOLECTIN	VVAGGLUTIN CHAIN: A;	AGGLUTININ ISOLECTIN	I/AGGLUTININ	CHAIN: A;	TUMOR NECR	RECEPTOR; CHAIN: A, B;		TUMOR NECR	TUMOR NECROSIS FACT RECEPTOR; CHAIN: A, B;
SEQFOL D score				50.68						,	_			62.34				
PMF score		1.00	1.00				0.01		-0.12		0.00						0.36	0.36
Verify score		0.35	0.39				0.40		90.0		-0.20						-0.34	-0.34
Psi Blast		1.6e-93	3.2e-93	6e-10			1.1e-07		3e-08		6e-09			3e-12			3e-12	3e-12
END		249	251	561			88		88		88			192		_	203	203
STAR T AA		21	22	64			12		12		12			37			57	57
CHAI N ID		н	н	า	_		Ą		V		4			A		-	A	A
PDB ID		lngp	2ћгр	1dan			lehd		leis		len2			lext	_		lext	lext
SEQ ID NO:		1759	1759	1762			1762		1762		1762			1762			1762	1762

PDB annotation		GP IIB/IIIA ANTAGONIST 1FVL 9	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	SIGNALLING PROTEIN TYPE I RECEPTOR STAFF 1: 1NCF 8	BINDING PROTEIN, CYTOKINE	INCF 19	SIGNALLING PROTEIN TYPE I	RECEPTOR, STNFRI; INCF 8	INCF 19	COMPLEX (BLOOD	CHRISTMAS FACTOR: COMPLEX.	INHIBITOR, HEMOPHILIA/EGF,	BLOOD COAGULATION, 2 PLASMA,	SERINE PROTEASE, CALCIUM-	BINDING, HYDROLASE, 3	GLYCOPROTEIN	SERINE PROTEASE INHIBITOR	FACTOR XA INHIBITOR;	ANTISTASIN, CRYSTAL	STRUCTURE, FACTOR XA	INHIBITOR, 2 SERINE PROTEASE	INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR	FACTOR XA INHIBITOR;	ANTISTASIN, CRYSTAL	STRUCTURE, FACTOR XA	INHIBITOR, 2 SERINE PROTEASE	INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR	FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL
Coumpound		NULL IFVL 5	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	TUMOR NECROSIS FACTOR	B: INCF 5		TUMOR NECROSIS FACTOR	RECEPTOR; INCF 4 CHAIN: A,	b; INCF 3	FACTOR IXA; CHAIN: C, L,; D-PHE-PRO-ARG: CHAIN: I:							ANTISTASIN; CHAIN: NULL;						ANTISTASIN; CHAIN: NULL;						ANTISTASIN; CHAIN: NULL;	
SEQFOL D score	2000			66.44				55.28			57.36													65.03							
PMF			-0.12		0.23											•		0.15												0.12	
Verify	2000		0.17		-0.24										_			0.05												-0.14	
Psi Blast			4.5e-19	1.3e-20	7.5e-09			7.5e-11			3e-14							3e-17						1.5e-18						3e-18	
END			184	203	140			189			9/1							121						161						161	
STAR			15	48	17			55			41							61						57						28	
CHAI					Ą			Ą			7																				
PDB CD	1		1klo	1klo	lncf			lncf			1pfx							1skz			_			Iskz						Iskz	
SEQ	NO.		1762	1762	1762			1762			1762							1762						1762						1762	

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PDB annotation	STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE INHIBITOR, THROMBOSIS		TREFOIL FAMILY OF PEPTIDES PSP REPEAT, GROWTH FACTOR, SIGNAL			SIGNAL TRANSDUCTION PROTEIN	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN, C2-DOMAIN, EXOCYTOSIS, NEUROTRANSMITTER 2 RELEASE.
Coumpound		ANTISTASIN; CHAIN: NULL;	MEMBRANE PROTEIN VITELLINE MEMBRANE OUTER LAYER PROTEIN I IVMO 3	PORCINE PANCREATIC SPASMOLYTIC POLYPEPTIDE; CHAIN: A, B;	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	BETA-SPECTRIN; 1BTN 4 CHAIN: NULL; 1BTN 5	SYNAPTOTAGMIN I; CHAIN: A;	SYNAPTOTAGMIN I; CHAIN: A;
SEQFOL D score				61.72		97.20			•
PMF score		-0.08	-0.15		0.13		0.70	0.24	0.01
Verify score		0.13	0.36		0.12		-0.02	0.52	0.04
Psi Blast		4.5e-17	9e-33	0.0014	1.5e-18	6e-29	0.003	0.0043	1.2e-11
END AA		204	190	191	133	191	234	347	349
STAR T AA		86	35	8	13	32	200	245	245
CHAI N ID			4	∢	∢	A		∢	¥
PDB ID		1skz	lvmo	2psp	9wga	9wga	1btn	lbyn	lbya
SEQ NO:		1762	1762	1762	1762	1762	1768	1768	1768

PDB annotation		ENDOCYTOSIS/EXOCYTOSIS	ENDOCYTOSIS/EXOCYTOSIS BETA SANDWICH, CALCIUM ION, C2 DOMAIN	SIGNALING PROTEIN DAPPI, PHISH, BAM32; PLECKSTRIN, 3-PHOSPHOINOSITIDES, INOSITOL TETRAKISPHOSPHATE 2 SIGNAL TRANSDUCTION PROTEIN, ADAPTOR PROTEIN	SIGNALING PROTEIN DAPPI, PHISH, BAM32; PLECKSTRIN, 3-PHOSPHOINOSITIDES, INOSITOL TETRAKISPHOSPHATE 2 SIGNAL TRANSDUCTION PROTEIN, ADAPTOR PROTEIN	SIGNALING PROTEIN NF1-333; NEUROFIBROMIN, TYPE I NEUROFIBROMATOSIS, NF1, RAS, GAP, 2 SIGNAL TRANSDUCTION, CANCER, GROWTH REGULATION, GTP 3 HYDROLYSIS, PATIENT MUTATION, ARGININE FINGER	SIGNALING PROTEIN NF1-333; NEUROFIBROMIN, TYPE I NEUROFIBROMATOSIS, NF1, RAS, GAP, 2 SIGNAL TRANSDUCTION, CANCER, GROWTH REGULATION, GTP 3 HYDROLYSIS, PATIENT MUTATION, ARGININE FINGER	
		EZ	SA	SIG FIE TEA	A TE THE SEC	M G G G G G G G G G G G G G G G G G G G	SE SE SE SE SE SE SE SE SE SE SE SE SE S	
Coumpound			SYNAPTOTAGMIN III; CHAIN: A;	DUAL ADAPTOR OF PHOSPHOTYROSINE AND 3- CHAIN: A;	DUAL ADAPTOR OF PHOSPHOTYROSINE AND 3- CHAIN: A;	NEUROFIBROMIN; CHAIN: A;	NEUROFIBROMIN; CHAIN: A;	PHOSPHORYLATION PLECKSTRIN (N.TERMINAL PLECKSTRIN HOMOLOGY DOMAIN) MUTANT IPLS 3
SEQFOL	D Score					108.36		
PMF	score		0.54	0.36	0.70		0.99	0.37
Verify	score		0.47	0.07	-0.29		0.21	0.33
Psi Blast			4.5e-05	6e-05	96-06	7.5e-68	7.5e-68	4.5e-05
END	§		362	235	239	687	682	239
STAR	I AA		247	173	173	400	416	173
CHAI			V	<	∢	∢	∢	
PDB	∋		1dqv	1fao	1fb8	lJu[1nf1	Ipis
SEQ	ÿ		1768	1768	1768	1768	1768	1768

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PDB annotation		SIGNAL TRANSDUCTION SON OF SEVENLESS; PLECKSTRIN, SON OF SEVENLESS, SIGNAL TRANSDUCTION	SIGNAL TRANSDUCTION IRS-1; BETA-SANDWHICH, SIGNAL TRANSDUCTION	HYDROLASE CALB DOMAIN; HYDROLASE, C2 DOMAIN, CALB DOMAIN			GTPASE ACTIVATION GAP-334, GAPETTE; GTPASE ACTIVATION, RAS, GAP, SIGNAL TRANSDUCTION, GROWTH 2 REGULATION, CANCER	GTPASE ACTIVATION GAP-334, GAPETTE; GTPASE ACTIVATION, RAS, GAP, SIGNAL TRANSDUCTION, GROWTH 2 REGULATION, CANCER	RNA-BINDING PROTEIN/RNA TRA PRE-MRNA; SPLICING REGULATION, RNP DOMAIN, RNA
Coumpound	WITH LEU GLU (HIS)6 ADDED TO THE C TERMINUS 1PLS 4 (INS(G105-LEHHTHHHH)) (NMR, 25 STRUCTURES) 1PLS 5	SOS I; CHAIN: NULL;	INSULIN RECEPTOR SUBSTRATE 1; CHAIN: A, B;	PHOSPHOLIPASE A2; CHAIN: NULL;	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2	DOMAIN (CALB) INST 3 CALCIUM/PHOLD ID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN (CALB) IRSY 3	P120GAP; CHAIN: NULL;	P120GAP; CHAIN: NULL;	SXL-LETHAL PROTEIN; CHAIN: A, B; RNA (5'- R(P*GP*UP*UP*GP*UP*UP*
SEQFOL D score								183.05	
PMF score		0.39	0.16	0.22	0.05	0.49	1.00		-0.19
Verify score		-0.48	0.17	0.22	-0.14	0.13	0.62		0.05
Psi Blast		0.00015	3e-05	90-99	0.0043	1.5e-09	1.5e-91	1.5e-91	3.2e-14
END AA		235	245	349	347	349	712	718	205
STAR T AA		162	184	247	245	246	397	397	126
CHAI N ID			¥						¥
PDB 13		1pms	lqqg	lriw	lrsy	1rsy	lwer	Iwer	167f
SEQ NO:		1768	1768	1768	1768	1768	1768	1768	1770

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PDB annotation	COMPLEX	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA	COMPLEX	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA	COMPLEX	RNA-BINDING PROTEIN/RNA TRA	PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA	COMPLEX	GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA			GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA			GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA			GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	שניים עיר זה נסט גינה נהייים מה
Coumpound	UP*UP*UP*UP*U)- CHAIN: P, Q;	SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5'-	R(P*GP*UP*UP*GP*UP*UP*UP*	UP*UP*UP*UP*U)- CHAIN: P, Q;	SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5'-	R(P*GP*UP*UP*GP*UP*UP*	UP*UP*UP*UP*U)- CHAIN: P, Q;	SXL-LETHAL PROTEIN; CHAIN:	A, B; RNA (5'-	R(P*GP*UP*UP*GP*UP*UP*UP*	UP*UP*UP*UP*U)- CHAIN: P, Q;	POLYDENYLATE BINDING	PROTEIN I; CHAIN; A, B, C, D,	E. F. G. H: RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	O, P, Q, R, S, T;	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-3'); CHAIN: M, N,	O, P, Q, R, S, T;	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP-3'); CHAIN: M, N,	O, P, Q, R, S, T;	POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D,	12 11. DAIA (E)
SEQFOL D score																																		
PMF score		-0.02				1.00				15.0				-0.01						98.0						-0.11						68.0		
Verify score		0.24				0.63				0.63				60.0						0.40						0.07						0.45		
Psi Blast		1.6e-37				4.8e-34				4.8e-14				1.6e-39						6.4e-34						1.6e-32						6.4e-28		
END AA		314				425				431		_		320						431						300						409		
STAR T AA		132				236	_			348				136	_					238			_			136						238		
CHAI N ID		¥				¥				A				٧						A			_			В				-		В		
aga 1D		167f				1b7f				J291				Icvj						lcvj						Icvj						Icvj		_
SEQ ID NO:		1770				1770				1770				1770						1770						1770						1770		

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PDB annotation	REGULATION/RNA	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATIONRNA	GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATIONRNA	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA-
Coumpound	R(*AP*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)-3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A):5); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A):3'); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)-3'); CHAIN: M, N, O, P, Q, R, S, T;	HU ANTIGEN C; CHAIN: A;	HU ANTIGEN C; CHAIN: A;	HU ANTIGEN C; CHAIN: A;	HU ANTIGEN C: CHAIN: A:
SEQFOL D score									
PMF score		0.76	0.65	0.25	0.68	0.19	0.27	-0.19	-0.03
Verify score		0.33	0.17	0.03	0.78	0.04	0.52	0.03	0.48
Psi Blast		1.6e-12	6.4e-21	1.6e-21	1.6e-12	3.2e-21	4.8e-13	8e-14	3.2e-18
END		435	402	405	435	322	431	218	319
STAR T AA		352	238	238	352	233	346	136	237
CHAI N ID		B	tr ⁴	н	н	¥	А	V	⋖
PDB ID		Icvj	lcvj	lcvj	1cvj	z8p1	1d8z	1d9a	149a
SEQ NO EQ		1770	1770	1770	1770	1770	1770	1770	1770

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PDB annotation	BINDING DOMAIN	RIBONUCLEOPROTEIN U1A117; RIBONUCLEOPROTEIN, RNP DOMAIN, SPLICEOSOME	STRUCTURAL PROTEIN PROTEIN C23; RNP, RBD, RRM, RNA BINDING DOMAIN, NUCLEOLUS	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONUCLEOPROTEIN	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2	NUCLEAR PROTEIN HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1, NUCLEAR PROTEIN, HNRNP, RBD, RRM, RNP, RNA BINDING, 2 RIBONUCLEOPROTEIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN
Coumpound		UI SMALL NUCLEAR RIBONUCLEOPROTEIN A; CHAIN: NULL:	NUCLEOLIN RBD2; CHAIN: A;	HNRNP A1; CHAIN: NULL;	HNRNP A1; CHAIN: NULL;	HNRNP A1; CHAIN: NULL;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A;
SEQFOL D score									
PMF score		0.12	0.07	60.0-	0.95	0.94	-0.19	0.16	0.68
Verify score		0.57	0.30	0.17	0.21	0.83	0.03	0.78	0.91
Psi Blast		1.6e-11	3.2e-12	4.8e-45	1.6e-40	1.3e-16	6.4e-20	4.8e-22	9.6e-15
END		315	313	314	425	431	213	314	425
STAR T AA		230	222	129	231	350	136	237	351
CHAI N ID			Ą			,	Ą	Ą	٧
PDB ID		1tht	1fjc	lha!	1ha1	lha1	1hd1	141	1hd1
SEQ NO:		1770	1770	1770	1770		1770	1770	1770

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PDB annotation	RIBONUCLEOPROTEIN PTB, PTB- C198, HETEROGENEOUS NUCLEAR POLYPYRIMIDINE TRACT BINDING PROTEIN, RNP, RNA, SPICING, 2 TRANSLATION			RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN	RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	RNA-BINDING PROTEIN SPLICING,
Coumpound	POLYPYRIMIDINE TRACT- BINDING PROTEIN; CHAIN: A;	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN 1SXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) 1SXL 4 (NMR, 17 STRUCTURES) 1SXL 5	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN ISXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) ISXL 4 (NMR, 17 STRUCTURES) ISXL 5	MUSASHII; CHAIN: A;	MUSASHII; CHAIN: A;	MUSASHII; CHAIN: A;	SEX-LETHAL PROTEIN; CHAIN: NULL;	SEX-LETHAL PROTEIN; CHAIN: NULL;	SPLICING FACTOR U2AF 65 KD
SEQFOL D score									
PMF score	0.15	-0.15	0.13	-0.18	0.17	66.0	0.25	0.70	0.88
Verify score	0.06	0.21	0.51	0.11	0.74	0.91	0.36	0.42	0.75
Psi Blast	4.8e-19	1.6e-18	3.2e-13	1.3e-14	6.40-19	4.8e-14	1.1e-19	4.8e-14	6.4e-18
END	427	319	429	213	314	425	322	431	314
STAR T AA	238	223	341	136	237	351	236	348	236
CHAI N ID	A			A	A	А			Ą
PDB ID	Iqm9	Isxl	1sxl	2mss	2mss	2mss	2sxl	2sxl	2u2f
SEQ ID NO:	1770	1770	1770	1770	1770	1770	1770	1770	1770

PDB annotation	U2 SNRNP, RBD, RNA-BINDING PROTEIN	COMPLEX (RIBONUCLEOPROTEIN/DNA)	HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA),	HETEROGENEOUS NUCLEAR 2 RIBONUCLEOPROTEIN A1	COMPLEX (RIBONUCLEOPROTEIN/DNA)	HNRNP A1, UP1; COMPLEX	(RIBONUCLEOPROTEIN/DNA),	RIBONUCLEOPROTEIN AI	RNA BINDING DOMAIN RNA	BINDING DOMAIN, KBD, KNA	RECOGNITION MOTIF, KKM, 2	TRANSLATIONAL INHIBITOR, SEX 3	DETERMINATION, X CHROMOSOME	DOSAGE COMPENSATION	RNA BINDING DOMAIN RNA	BINDING DOMAIN, RBD, RNA	RECOGNITION MOTIF, RRM, 2	SPLICING INHIBITOR,	TRANSLATIONAL INHIBITOR, SEX 3	DETERMINATION, X CHROMOSOME	DOSAGE COMPENSATION	COMPLEX (ZINC FINGER/DNA)	COMPLEA (ZINC FINGERUNA), ZINC FINGER, DNA-BINDING	PROTEIN	COMPLEX (ZINC FINGER/DNA) ZINC
Coumpound	SUBUNIT; CHAIN: A;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1;	CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED	TELOMETRIC DNA; CHAIN: B;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1;	CHAIN: A; 12-NUCLEOTIDE	SINGLE-STRANDED TEI OMFTRIC DNA: CHAIN: R.		SEX-LETHAL; CHAIN: A, B, C;						SEX-LETHAL; CHAIN: A, B, C;							QGSR ZINC FINGER PEPTIDE;	OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	DNA; CHAIN: A, B, D, E;
SEQFOL D score			•							•												74.27		_	
PMF score		0.09			0.52				-0.02						96'0										0.04
Verify		0.00			0.60				0.22						0.32										-0.22
Psi Blast		4.8e-47			1.6e-43				3.2e-36						1.4e-32							3.2e-31			9.6e-44
END AA		319			433				307						425							445			219
STAR T AA		128			231				133						236							363			138
CHAI N ID		∢			⋖				¥						Ą							∢			S
PDB ID		2up1			2up1				3sx1						3sxl							laIh			1mey
SEQ ID NO:		1770			1770				1770						1770							1772			1772

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PDB annotation	FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
Coumpound	CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;
SEQFOL D score							
PMF		0.96	1.00	1.00	1.00	1.00	1.00
Verify score		0.35	0.14	0.54	0.24	0.71	0.74
Psi Blast		4.8e-46	4.8e-47	1.3e-47	3.2e-48	1.1e-49	3.2e-50
END AA		247	275	303	331	359	387
STAR T AA		166	194	222	250	278	306
CHAI N ID		ပ	٠ ن	ပ	ပ	ပ	ပ
PDB ID		Imey	lmey '	Ітеу	Imey	Imey	Imey
SEQ ID NO:	·	1772	1772	1772	1772	1772	1772

PDB annotation	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX
Coumpound	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, B; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;
SEQFOL D score						102.60	
PMF score	1.00	1.00	1.00	1.00	1.00		1.00
Verify score	0.69	-0.02	0.37	0.52	0.31		0.09
Psi Blast	1.6e-51	4.8e-51	9.66-51	1.6e-50	1.6e-50	1.6e-50	6.4e-34
END	415	443	471	499	527	528	531
STAR T AA	334	362	390	418	446	446	474
CHAI N ID	ပ	ပ	ပ	ပ	၁	၁	ပ
PDB ID	lmey	Imey	Ітеу	lmey	lmey	1mey	lmey
SEQ ID NO:	1772	1772	1772	1772	1772	1772	1772

PDB annotation	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CK I SI AL SI KUCI UKE, CUMPLEA (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) COMPLEX	(TRANSCRIPTION	REGULATION/DNA), RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC	FINGER PROJEIN	COMPLEX (TRANSCRIPTION	REGULATION/DNA) COMPLEX	(TRANSCRIPTION	REGULATION/DNA), RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC	FINGER PROTEIN	COMPLEX (TRANSCRIPTION	REGULATION/DNA) COMPLEX	(TRANSCRIPTION	REGULATION/DNA), RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC	FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX
Coumpound		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		TFIIIA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F;					TFIILA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F;					TFIIIA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F;					TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE;
SEQFOL D score												_																			100.49
PMF score		0.05				0.29				0.54							96.0							0.99							
Verify score		0.55				-0.73				0.24							0.28							0.07							
Psi Blast		9.6e-11				1.6e-09				1.3e-35							4.8e-37			•				3.2e-38							3.2e-38
END		161				7.1				312							368							452							497
STAR T AA		164				44				167							223							307							334
CHAI N ID		Ð				Ö				V							٧							₹							∢
PDB ID		1mey				1mey				156							11.66							156			,				1tf6
SEQ NO:		1772				1772				1772		_					1772							1772	`						1772

PDB annotation	(TRANSCRIPTION REGULATIONDNA), RNA POL YMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATIONDNA) COMPLEX (TRANSCRIPTION REGULATIONDNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION
Coumpound	CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; SS RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;
SEQFOL D score					
PMF		0.95	0.94	0.11	0.72
Verify score		-0.06	0.01	0.07	-0.21
Psi Blast		1.6e-37	1.4e-36	4.8e-32	1.5e-23
END		509	529	247	275
STAR T AA		363	391	143	169
CHAI N ID		∢	∢	U	ပ
PDB ID		1476	11f6	Jubd	1ubd
SEQ NO.		1772	1772	1772	1772

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PDB annotation	REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX	(TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	INTITATOR ELEMENT: YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION PEGIT ATTOMENA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION	KEGULA HOMDNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION	COMPLEX (TRANSCRIPTION
Compound		YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DIVA:	CHAIN: A, B;			YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS PS	CHAIN: A. B:				YY1; CHAIN: C. ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;				010000000000000000000000000000000000000	YYI; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;				YY1; CHAIN: C; ADENO.
SEQFOL D score																											
PMF score		1.00				1.00						1.00								1.00							1.00
Verify		0.13				0.02		_				0.21							700	0.36							0.03
Psi Blast		4.5e-43		· -		1.6e-32			-			1.5e-46	,						7.0	4.86-34							1.5e-50
END		303				303						359							35.5	955							443
STAR T AA		661				202						223		_					0,70	228							332
CHAI N ID		ပ				၁						O							,	ر.							ပ
PDB CI		1ubd				1ubd						lubd								pon							lubd
SEQ B Si		1772				1772						1772							1770	7//1							1772

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PDB annotation	REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION,
Coumpound	ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA;
SEQFOL D score					82.44
PMF score		1:00	0.90	1.00	
Verify score		0.06	-0.01	0.01	
Psi Blast		6e-52	9 c. 51	3e-50	9e-51
END AA		472	499	527	528
STAR		360	388	416	420
CHAI N ID		ပ	ပ	ပ	၁
PDB ID		lubd	1ubd	lubd	lubd
SEQ NO.		1772	1772	1772	1772

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PDB annotation	INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ADR1, ZINC FINGER, NMR	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI;
Coumpound	CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;	ADRI; CHAIN: NULL;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLI1; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;
SEQFOL D score								
PMF		1:00	-0.18	0.13	0.95	1.00	66.0	86.0
Verify score		0.11	0.11	-0.10	0.26	0.51	0.21	0.31
Psi Blast		86-35	8e-14	3.2e-29	3e-58	9e-64	1.5e-63	1.5e-67
END AA		527	193	246	389	417	445	501
STAR T AA		426	139	102	197	278	306	362
CHAI N ID		ပ		Ą	¥	¥	٧	¥
EDB ID		lubd	2adr	2gli	2gli	2gli	2gli	2gli
SEQ B NO:		1772	1772	1772	1772	1772	1772	1772

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PDB annotation	GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)		TRANSCRIPTION REGULATION PROTO-ONCOGENE, NUCLEAR BODIES (PODS), LEUKEMIA, 2 TRANSCRIPTION REGULATION			LIGASE CBL, UBCH7, ZAP-70, E2, UBIQUITIN, E3, PHOSPHORYLATION, 2 TYROSINE KINASE, UBIQUITINATION, PROTEIN DEGRADATION,	LIGASE CBL, UBCH7, ZAP-70, E2,
Coumpound		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;		TRANSCRIPTION FACTOR PML; CHAIN: NULL;	VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN) 1CHC 3 (NMR, 1 STRUCTURE) 1CHC 4	VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN) 1CHC 3 (NMR, 1 STRUCTURE) 1CHC 4	SIGNAL TRANSDUCTION PROTEIN CBL; CHAIN: A; ZAP- 70 PEPTIDE; CHAIN: B; UBIQUITIN-CONJUGATING ENZYME E12-18 KDA UBCH7; CHAIN: C:	SIGNAL TRANSDUCTION
SEQFOL D score		88.77								
PMF score			0.84	1.00		0.07	0.52	0.39	0.41	0.21
Verify score			-0.07	0.24		-0.87	-0.50	-0.28	0.41	-0.34
Psi Blast		1.5e-67	1.5e-49	1.6e-34		4.8e-06	1.3e-11	3.2e-06	1.2e-12	3.2e-06
END		501	524	529		59	59		69	59
STAR T AA		362	390	398		10	11	51	14	15
CHAI N ID		∢	4	Ą					V	Ą
PDB ID		2gli	2gli	2gli		1bor	1chc	1chc	Ifbv	1fbv
SEQ ID NO:		1772	1772	1772		1774	1774	1774	1774	1774

PDB annotation	UBIQUITIN, E3, PHOSPHORYLATION, 2 TYROSINE KINASE, UBIQUITINATION, PROTEIN DEGRADATION,	ZINC-BINDING PROTEIN ZINC- BINDING PROTEIN, XNF7, BBOX, DEVELOPMENT, 3 MID-BLASTULA- TRANSITION	METAL BINDING PROTEIN RING FINGER PROTEIN MATI; RING FINGER (C3HC4)	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN	DNA-BINDING PROTEIN V(D)J RECOMBINATION ACTIVATING PROTEIN 1; RAG1, V(D)J RECOMBINATION, ANTIBODY, MAD, RING FINGER, 2 ZINC BINUCLEAR CLUSTER, ZINC FINGER, DNA-BINDING PROTEIN	DNA-BINDING PROTEIN V(D)J RECOMBINATION ACTIVATING PROTEIN I; RAGI, V(D)J RECOMBINATION, ANTIBODY, MAD, RING FINGER, 2 ZINC BINUCLEAR CLUSTER, ZINC FINGER, DNA-BINDING PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COILED-COILS,
Coumpound	PROTEIN CBL; CHAIN: A; ZAP- 70 PEPTIDE; CHAIN: B; UBIQUITIN-CONJUGATING ENZYME E12-18 KDA UBCH7; CHAIN: C;	NUCLEAR FACTOR XNF7; CHAIN: NULL;	CDK-ACTIVATING KINASE ASSEMBLY FACTOR MATI; CHAIN: A;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	RAGI; CHAIN: NULL;	RAG1; CHAIN: NULL;	ALPHA SPECTRIN; CHAIN: A, B, C;
SEQFOL D score		_		54.69			
PMF score	!	0.36	0.74		0.84	0.01	0.19
Verify score		-0.23	0.21		-0.03	-0.19	-0.07
Psi Blast		1.5e-13	4.5e-14	3e-06	4.5e- <u>2</u> 0	6.4e-14	4.5e-07
END AA		128	70	304	100	109	414
STAR T AA		93	11	63	=	6	248
CHAI N ID		,	¥	¥			A
PDB ID		lfre	1825	1quu	Irmd	Irmd	Icun
SEQ NO B		1774	1774	1774	1774	1774	1775

PDB annotation	STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA	HELICAL LINKER REGION, 22	IANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA DEOTEN 2354 THE RE HE IY	BUNDLE			TRANSCRIPTION HELIX-BUNDLE	TRANSCRIPTION TRANSCRIPTION,	RNA POLYMERASE II SUBUNIT,	HYPERTHERMOPHILIC,	EAINEMOI INCE							
Coumpound		ALPHA SPECTRIN; CHAIN: A, B, C;			SYNTAXIN-1A; CHAIN: A, B, C;		VIRUS EQUINE HERPES VIRUS- 1 (C3HC4, OR RING DOMAIN)	ICHC 3 (NMK, 1 SIRUCTURE)	TRANSCRIPTION ELONGATION FACTOR S-II; CHAIN: A:	RNA POLYMERASE II; CHAIN:	NULL;		TRANSCRIPTION REGULATION	TRANSCRIPTIONAL	ELONGATION FACTOR SII	(TFIIS, NUCLEIC-ACID 1TFI 3	BINDING DOMAIN) (NMR, 12	SIRUCIURES) IIFI 4	TRANSCRIPTION REGULATION	ELONGATION FACTOR SIT
SEQFOL D score																				
PMF score		-0.13			-0.12		0.18		0.52	0.51			1.00						0.75	
Verify score		0.34			0.10		0.21		-0.14	-0.51			0.16						-0.0	
Psi Blast		9e-10			4.5e-09		90000		4.5e-06	0.00045			1.6e-10						4.5e-11	
END		93			124		553		78	343			345					9,	343	
STAR T AA					6		516			291			286						287	
CHAI N ID		¥			4				 ¥											
PDB TD		lcun			lez3		1chc		1eo0	lqyp			1tfi					١	Ħ	
SEQ ID NO:		1776			1776		1777		1780	1780			1780					3	1780	

PDB annotation	DOMAIN; COMPLEX (SH3 DOMAINVIRAL ENHANCER), PROTO-ONCOGENE, 2 TRANSFERASE, TYROSINE- PROTEIN KINASE, PHOSPHORYLATION, 3 AIDS, MYRISTYLATION, GTP-BINDING, ATP-BINDING, SH3 DOMAIN, 4 SH2 DOMAIN, PPII HELIX, PXXP MOTIF	TRANSFERASE PROTO-ONCOGENE TYROSINE KINASE; PROTO- ONCOGENE, TRANSFERASE, TYROSINE-PROTEIN KINASE, 2 PHOSPHORYLATION, ATP-BINDING, MYRISTYLATION, SH3 DOMAIN, 3 COMPLEX (PHOSPHOTRANSFERASE/PEPTIDE)	COMPLEX (SIGNAL TRANSDUCTIONPEPTIDE) COMPLEX (SIGNAL TRANSDUCTIONPEPTIDE), SH3 DOMAIN		COMPLEX (KINASE/PEPTIDE)
Coumpound	PROTEIN; CHAIN: B, D;	PHOSPHOTRANSFERASE FYN; CHAIN: A; 3BP-2; CHAIN: B;	GRB2; CHAIN: A; SOS-1; CHAIN: B;	SIGNAL TRANSDUCTION PROTEIN GROWTH FACTOR RECEPTOR-BOUND PROTEIN 2 (GRB2, N-TERMINAL 1GBR 3 SH3 DOMAIN) COMPLEXED WITH SOS-A PEPTIDE 1GBR 4 (NMR, 29 STRUCTURES) 1GBR 5	P56=LCK= TYROSINE KINASE; 1LCK 7 CHAIN: A; 1LCK 8 TAIL PHOSPHOPEPTIDE TEGQ(PHOSPHO)YQPQPA;
SEQFOL D score					
PMF score		1.00	0.84	0.74	0.01
Verify score		0.07	-0.33	-0.35	-0.41
Psi Blast		le-11	1.4e-12	36-13	4.8e-19
END		508	208	510	581
STAR T AA		457	454	446	456
CHAI		∢	V	¥	A
PDB ID		1fyn	1gbq	1gbr	llck
S E S		1781	1781	1781	1781

PDB annotation		COMPLEX (TRANSFERASE/PEPTIDE) SRC, SH3 DOMAIN, LIGANDS, NON-PEPTIDE ELEMENTS, 2 COMPLEX (TRANSFERASE/PEPTIDE)	CIRCULAR PERMUTANT PWT; CIRCULAR PERMUTANT, SH3 DOMAIN, CYTOSKELETON	TYROSINE KINASE TYROSINE KINASE-INHIBITOR COMPLEX, DOWN-REGULATED KINASE, 2 ORDERED ACTIVATION LOOP	CYTOSKELETON CYTOSKELETON, MEMBRANE, SH3 DOMAIN	TYROSINE-PROTEIN KINASE BRUTONS TYROSINE KINASE, B CELL PROGENITOR KINASE, TRANSFERASE, TYROSINE- PROTEIN KINASE, PHOSPHORYLATION, 2 SH3 DOMAIN		CELL CYCLE/GENE REGULATION COMPLEX, SIGNAL TRANSDUCTION, PHOSPHOTYROSINE BINDING 2 DOMAIN (PTB), ASYMETR IC CELL DIVISION, CELL CYCLE/GENE 3 REGULATION	TRANSFERASE HCK; SH3, PROTEIN
Coumpound	ILCK 14 CHAIN: B; ILCK 15	C-SRC; CHAIN: C; NLI (MN7- MN2-MN1-PLPPLP); CHAIN: N;	ALPHA SPECTRIN; CHAIN: NULL;	HAEMATOPOETIC CELL KINASE (HCK); CHAIN: A;	ALPHA II SPECTRIN; CHAIN: A;	TYROSINE-PROTEIN KINÁSE BTK; CHAIN: A;	PHOSPHOTRANSFERASE FYN PROTO-ONCOGENE TYROSINE KINASE (E.C.2.7.1.112) 1SHF 3 (SH3 DOMAIN) 1SHF 4	NUMB PROTEIN; CHAIN: A; GPPY PEPTIDE; CHAIN: B;	HEMA TOPOIETIC CELL
SEQFOL D score									
PMF		1.00	1.00	0.15	1.00	0.81	1.00	0.64	1.00
Verify score		0.18	0.21	-0.31	0.20	-0.05	-0.64	0.25	0.46
Psi Blast		3e-11	3e-10	3.2e-18	1.5e-10	3 c -12	7.5e-11	3e-12	7.5e-12
END		507	508	581	508	508	508	153	508
STAR T AA		459	457	456	457	455	459	27	455
CHAI N ID		ပ		¥	V	¥	A	V	
EQ4		Inlo	1pwt	lqcf	1qkw	1919	1shf	2птъ	4hck
SEQ ID NO:		1781	1781	1781	1781	1781	1781	1781	1781

		· · · · · · · · · · · · · · · · · · ·		г		r		
PDB annotation	TYROSINE KINASE, SIGNAL TRANSDUCTION, 2 TRANSFERASE	COMPLEX (TRANSCRIPTION FACTOR/DNA) TRANSCRIPTION FACTOR, PROTEIN-DNA COMPLEX, CYTOKINE 2 ACTIVATION, COMPLEX (TRANSCRIPTION FACTOR/DNA)	LIPID BINDING PROTEIN APO-E3; LIPID TRANSPORT, LIPID TRANSPORT, HEPARIN-BINDING, PLASMA 2 PROTEIN, HDL, VLDL REMARK	STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COLLED-COILS, STRUCTURAL PROTEIN	ENDOCYTOSIS/EXOCYTOSIS NSECI; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX BUNDLE	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX BUNDLE	ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX BUNDLE
Сонтроинд	KINASE; CHAIN: NÜLL;	STAT3B; CHAIN: A; 18-MER DESOXYOLIGONUCLEOTIDE; CHAIN: B;	APOLIPOPROTEIN E; CHAIN: A;	ALPHA SPECTRIN; CHAIN: A, B, C;	SYNTAXIN BINDING PROTEIN I; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	SYNTAXIN-1A; CHAIN: A, B, C;	SYNTAXIN-1A; CHAIN: A, B, C;	SYNTAXIN-1A; CHAIN: A, B, C;
SEQFOL D score								
PMF score		0.04	0.04	90.0-	0.30	0.28	0.00	0.18
Verify score		0.07	0.20	0.04	-0.22	0.11	-0.41	-0.04
Psi Blast		1.1e-07	1.6e-05	3e-13	7.5e-19	4.5e-07	1.5e-08	1e-09
END AA		861	126	259	298	260	298	394
STAR T AA		36	6	24	78	118	138	246
CHAI N ID		< −	¥ ·	¥	щ	Ą	¥	∢
PDB ID		16g1	1bz4	1cun	1dn1	lez3	lez3	lez3
SEQ IO NO:		1782	1782	1782	1782	1782	1782	1782

PDB annotation	MEMBRANE PROTEIN FOUR HELIX BUNDLE, ALPHA HELIX	MEMBRANE PROTEIN FOUR HELIX BUNDLE, ALPHA HELIX	DNA-BINDING HWGA DNA- BINDING HWG-BOX DOMAIN A OF RAT HMG1; 1AAB 8 HMG-BOX 1AAB 20	SIGNALING PROTEIN GUANINE NUCLEOTIDE- BINDING PROTEIN 1; GBP, GTP HYDROLYSIS, GDP, GMP, INTERFERON INDUCED, DYNAMIN 2 RELATED, LARGE GTPASE FAMILY, SIGNALING PROTEIN	SIGNALING PROTEIN GBP, GTP HYDROLYSIS, GDP, GMP, INTERFERON INDUCED, DYNAMIN 2 RELATED, LARGE GTPASE FAMILY. GMPPNP, GPPNHP.	SERNE/THREONINE PROTEIN. KINASE TRANSFERASE, SERNE/THREONINE-PROTEIN KINASE, 2 PROTO-ONCOGENE, ZINC, ATP-BINDING, PHORBOL-		SIGNALLING PROTEIN TYPE I RECEPTOR, STNFR1; INCF 8
Coumpound	SSOI PROTEIN; CHAIN: A;	SSO1 PROTEIN; CHAIN: A;	HIGH MOBILITY GROUP PROTEIN; 1AAB 5 CHAIN: NULL; 1AAB 6	INTERFERON-INDUCED GUANYLATE-BINDING PROTEIN I; CHAIN: A;	INTERFERON-INDUCED GUANYLATE-BINDING PROTEIN I; CHAIN: A;	RAF-1; CHAIN: NULL;	DNA-BINDING HIGH MOBILITY GROUP PROTEIN FRAGMENT-B (HMGB) (DNA- BINDING IHME 3 HMG-BOX DOMAIN B OF RAT HMGI) (NMR, I STRUCTURE) IHME 4	TUMOR NECROSIS FACTOR RECEPTOR; INCF 4 CHAIN: A,
SEQFOL D score								
PMF score	0.04	0.03	0.03	0.19	0.04	0.03	0.00	0.12
Verify score	-0.09	-0.28	-0.24	0.02	0.02	-0.40	-0.29	0.02
Psi Blast	7.5e-07	16-11	0.00012	4.5e-05	0.00015	0.003	0.0045	9000
END	485	280	763	2333	2333	66	753	141
STAR T AA	283	89	716	2237	2237	69	716	17
CHAI N ID	∢	Y		∢	¥.			4
PDB ID	1fio	1fio	Iaab	1dg3	153n	lfaq	lhme	lncf
SEQ B B S	1782	1782	1783	1783	1783	1783	1783	1783

PDB annotation	BINDING PROTEIN, CYTOKINE INCF 19	PHOSPHOTRANSFERASE	CALCIUM-BINDING PROTEIN RAT BRAIN PKC-G; CALCIUM-BINDING PROTEIN, PROTEIN KINASE C, PKC, TRANSFERASE	CALCIUM-BINDING PROTEIN RAT BRAIN PKC-G; CALCIUM-BINDING PROTEIN, PROTEIN KINASE C, PKC, TRANSFERASE	GENE REGULATION/DNA LEF-1 HMG; LEF1, HMG, TCR-A, TRANSCRIPTION FACTOR, DNA BINDING, DNA 2 BENDING, COMPLEX (HMG DOMAIN/DNA), GENE REGULATION/DNA	CALCIUM-BINDING PROTEIN RAT BRAIN PKC-G; CALCIUM-BINDING PROTEIN, PROTEIN KINASE C, PKC, TRANSFERASE	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	
Соитроина	B; 1NCF 5	PROTEIN KINASE C DELTA TYPE; 1PTQ 4	PROTEIN KINASE C, GAMMA TYPE; CHAIN: NULL;	PROTEIN KINASE C, GAMMA TYPE; CHAIN: NULL;	LYMPHOID ENHANCER- BINDING FACTOR; CHAIN: A; DNA (5'- CHAIN: B; DNA (5'- CHAIN: C;	PROTEIN KINASE C, GAMMA TYPE; CHAIN: NULL;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	DNA-BINDING PROTEIN HUMAN ENHANCER-BINDING PROTEIN MBP-1 MUTANT WITH CYS 11 1BBO 3 REPLACED BY ABU (C11ABU) (NMR, 60 STRUCTURES) 1BBO
SEQFOL D score								
PMF		0.23	0.31	0.41	0.31	0.01	0.45	-0.13
Verify score		0.02	-0.09	-0.35	-0.13	-0.65	-0.30	0.07
Psi Blast		0.003	0.00075	9000	7.5e-05	0.0009	3.2e-26	3.26-12
END		20	50	66	763	137	130	232
STAR T AA		21	21	69	716	100	62	178
CHAI N ID					∀		¥	
PDB ID		1ptq	1tbn	Itbn	2lef	1tbn	laih	1bbo
SEQ ID NO:		1783	1783	1783	1783	1784	1785	1785

		COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGEI/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ADR1, ZINC FINGER, NMR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS,
7	DNA-BINDING PROTEIN HUMAN ENHANCER-BINDING PROTEIN MBP-1 MUTANT WITH CYS 11 1BBO 3 REPLACED BY ABU (C11ABU) (NMR, 60 STRUCTURES) 1BBO	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	ADR1; CHAIN: NULL;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA I; CHAIN: B; DNA; CHAIN: D, E;
	0.04	0.04	0.04	0.05	0.90	0.52
	-0.88	-0.42	-0.19	-0.23	-0.01	-0.23
	1.6e-12	1.6e-42	4.8e-41	3.2e-12	4.8e-18	8e-34
	113	98	114	114	117	157
	49	21	43	87	62	18
		ပ	၁	Ð		В
	1660	Imey	Imey	Imey	2adr	Iawc
	1785	1785	1785	1785	1785	
		1bbo 64 113 1.6e-12 -0.88 0.04	1bbo 64 113 1.66-12 -0.88 0.04 DNA-BINDING PROTEIN HUMAN ENHANCER-BINDING PROTEIN MBP-1 MUTANT WITH CYS 11 1BBO 3 REPLACED BY ABU (C11ABU) (NMR, 60 STRUCTURES) 1BBO 4 A A A CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	1bbo 64 113 1.66-12 -0.88 0.04 DNA-BINDING PROTEIN HUMAN ENHANCER-BINDING PROTEIN MBP-1 MUTANT WITH CYS 11 1BBO 3 REPLACED BY ABU (C11ABU) (NMR, 60 STRUCTURES) 1BBO 4 CONSENSUS ZINC FINGER PROTEIN; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G; CONSENSUS ZINC FINGER PROTEIN; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	1bbo 64 113 1.6e-12 -0.88 0.04 DNA-BINDING PROTEIN	1bbo 64 113 1.6e-12 -0.88 0.04 DNA-BINDING PROTEIN HUMAN ENHANCER-BINDING PROTEIN MITANT WITH CYS 11 1BBO 3 REPLACED BY ABU (CI1ABU) (NMR, 60 STR UCTIVES) 1BBO 4 NMA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; C, F, G; 1

PDB annotation	TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA;	GABPBETAI; COMPLEX	REGULATION/DNA), DNA-BINDING,	2 NUCLEAK PROTEIN, ETS DOMAIN,	ANKYKIN KEPEATS, TRANSCRIPTION 3 FACTOR	TUMOR SUPPRESSOR TUMOR	SUPPRESSOR, CDK4/6 INHIBITOR,	ANK YKIN MOTIF	COMPLEX (KINASE/ANTI-	ONCOGENE) CDK6; P16INK4A,	MISI; CYCLIN DEPENDENI	KINASE, CYCLIN DEPENDENT	KINASE INHIBITORY 2 PROTEIN,	CDK, INK4, CELL CYCLE, MULTIPLE	rumor suppressor, 3 mts1,	COMPLEX (KINASE/ANTI-	ONCOGENE) HEADER	COMPLEX (INHIBITOR	PROTEIN/KINASE) INHIBITOR	PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL,	ALPHA/BETA, COMPLEX	(INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR	PROTEIN/KINASE) INHIBITOR	PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL,	ALPHA/BETA, COMPLEX	(INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18-
Coumpound		.Ý	PROTEIN BETA I; CHAIN: B; CDNA. CHAIN: D E.			1 L	P19INK 4D CDK 4/6 INHIBITOR; T	CHAIN: NULL;	+	INASE		TUMOR SUPPRESSOR; CHAIN: N	B;	×	<u> </u>		<u> </u>)	CYCLIN-DEPENDENT KINASE C	6; CHAIN: A; P19INK4D; CHAIN: P		X	4	3	CYCLIN-DEPENDENT KINASE C	6; CHAIN: A; P19INK4D; CHAIN: P	-	× .	₩.	7	CYCLIN-DEPENDENT KINASE H
SEQFOL D score																-	•				•		•								
PMF		0.29			_		0.19			0.04									0.00						0.37						0.15
Verify score		-0.09				_	-0.01			0.14	-	-			-				-0.17						0.01						-0.12
Psi Blast		4.8e-29					8e-27			6.4e-17									6.4e-26						1.3e-23						6.4e-25
END		125					160			260									091						183						130
STAR T AA		3					21			443									21						50						1
CHAI N ID		В								Д									В	_					В						A
PDB ID		lawc					1bd8			lbi7									, xlq1						1blx						1bu9
SEQ NO:		1788					1788			1788									1788						1788						1788

						,			,
PDB annotation	INK4C; CELL CYCLE INHIBITOR, P18INK4C, TUMOR, SUPPRESSOR, CYCLIN- 2 DEPENDENT KINASE, HORMONE/GROWTH FACTOR	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	SIGNALING PROTEIN RUBI, UBIQUITIN-LIKE PROTEIN, ARABIDOPSIS, SIGNALING PROTEIN	DE NOVO PROTEIN PROTEIN DESIGN, HYDROPHOBIC CORE, PACKING, ROTAMERS, ROC, 2 UBIQUITIN, DE NOVO PROTEIN, UBIQUITIN	SIGNALING PROTEIN NEDD8; NEDD8, NEDD-8, UBIQUITIN-LIKE, PROTEOLYSIS, SIGNALING 2 PROTEIN	
Coumpound	6 INHIBITOR; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	MYOTROPHIN; CHAIN: NULL	UBIQUITIN-LIKE PROTEIN 7, RUB1; CHAIN: A;	ID8 UBIQUITIN; CHAIN: A;	UBIQUITIN-LIKE PROTEIN NEDD8; CHAIN: A, B, C, D;	UBIQUITIN TETRAUBIQUITIN ITBE 3
SEQFOL D score									
PMF score		90.0	0.10	0.37	0.01	0.92	0.76	0.75	0.94
Verify score		0.14	-0.12	0.01	0.14	0.17	0.02	0.22	0.48
Psi Blast		1.6e-17	1.3e-25	3.2e-24	1.6e-20	1.46-20	1.6e-27	6.4e-20	3.2e-27
END AA		267	161	129	127	194	196	195	193
STAR T AA		443	81	-	61	124	124	124	124
CHAI N ID		¥	٧	¥		A	¥	4	В
PDB ID		1d9s	11316	lihb	1myo	15t0	1c3t	Indd	Itbe
SEQ NO:		1788	1788	1788	1788	1791	1791	1791	1791

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PDB annotation		UBIQUITIN UBIQUITIN, DESIGNED CORE MUTANT	TRANSCRIPTION TUMOR SUPPRESSOR, CANCER, UBIQUITIN, BETA SANDWICH, 2 TRANSCRIPTION, TRANSCRIPTIONAL ELONGATION	MATRIX PROTEIN M-PMV MA MATRIX PROTEIN, CORE PROTEIN, POLYPROTEIN, MYRISTYLATION	MATRIX PROTEIN M-PMV MA MATRIX PROTEIN, CORE PROTEIN, POLYPROTEIN, MYRISTYLATION	ENDOCYTOSIS/EXOCYTOSIS NSEC1; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	ENDOCYTOSIS/EXOCYTOSIS NSEC1; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT		MUSCLE PROTEIN CTNC; CARDIAC, MUSCLE PROTEIN, REGULATORY, CALCIUM BINDING	MUSCLE PROTEIN CTNC; CARDIAC, MUSCLE PROTEIN, REGULATORY, CALCIUM BINDING	CALCIUM-BINDING PROTEIN CALMODULIN CERIUM TRIC- DOMAIN, RESIDUES 1 - 75; CERIUM-
Coumpound	CHROMOSOMAL PROTEIN UBIQUITIN 1UBI 3	UBIQUITIN CORE MUTANT ID7; CHAIN: A;	ELONGIN B; CHAIN: A, D, G, J; ELONGIN C; CHAIN: B, E, H, K; VHL; CHAIN: C, F, I, L;	M-PMV MATRIX PROTEIN; CHAIN: NULL;	M-PMV MATRIX PROTEIN; CHAIN: NULL;	 SYNTAXIN BINDING PROTEIN I; CHAIN: A; SYNTAXIN IA; CHAIN: B;	SYNTAXIN BINDING PROTEIN I; CHAIN: A; SYNTAXIN 1A; CHAIN: B;		TROPONIN C; CHAIN: NULL;	TROPONIN C; CHAIN: NULL;	CALMODULIN; CHAIN: NULL;
SEQFOL D score					69.49				57.92		
PMF score	99.0	0.55	0.15	0.64		0.00	0.00			0.25	-0.01
Verify score	0.19	0.39	-0.54	-0.22		-0.04	-0.04	1		0.30	0.12
Psi Blast	4.8e-29	3.2e-28	6.4e-05	3.2e-36	3.2e-36	0.0075	0.0075		6.4e-36	6.4e-36	4.8e-16
END	961	961	181	92	62	227	235		382	379	309
STAR T AA	124	124	124	-	-	157	165		225	241	241
CHAI N ID		¥	A			В	В				:
PDB ID	lubi	Ind7	lvcb	1bax	lbax	1dn1	1dn1		1aj4 	1aj4 	lak8
SEQ NO:	1791	1421	1791	1792	1792	1794	1795		1799	1799	1799

PDB annotation	LOADED, CALCIUM-BINDING PROTEIN	CALCIUM-BINDING CNTNC; CALCIUM-BINDING, REGULATION, TROPONIN C, CARDIAC MUSCLE 2 CONTRACTION		HYDROLASE CALCINEURIN; A, HYDROLASE, PHOSPHATASE, IMMUNOSUPPRESSION	CALCIUM-BINDING CALCIUM- BINDING, MYRISTOYLATION, NEURONAL SPECIFIC GUANYLATE 2 CYCLASE ACTIVATOR	CALCTUM-BINDING CALCTUM- BINDING, MYRISTOYLATION, NEURONAL SPECIFIC GUANYLATE 2 CYCLASE ACTIVATOR	CALCTUM-BINDING CALCTUM- BINDING, MYRISTOYLATION, NEURONAL SPECIFIC GUANYLATE 2 CYCLASE ACTIVATOR	Z - Z	TE)	2
Coumpound		CARDIAC N-TROPONIN C; CHAIN: NULL;	SERINE/THREONINE PHOSPHATASE 2B; CHAIN: A, B;	SERINE/THREONINE PHOSPHATASE 2B; CHAIN: A, B;	NEUROCALCIN DELTA; CHAIN: A, B;	NEUROCALCIN DELTA; CHAIN: A, B;	NEUROCALCIN DELTA; CHAIN: A, B;	CALCIUM-BINDING PROTEIN CALMODULIN COMPLEXED WITH CALMODULIN-BINDING DOMAIN OF ICDM 3 CALMODULIN-DEPENDENT PROTEIN KINASE II ICDM 4	CALCIUM-BINDING PROTEIN CALMODULIN (VERTEBRATE)	CALCITM-BINDING PROTEIN
SEQFOL D score			69.73				59.92			59.19
PMF score		-0.01		0.68	0.19	0.83		0.18	0.21	
Verify score		0.50		0.46	-0.02	0.64		0.25	0.05	
Psi Blast		1.4e-12	4.8e-42	4.8e-42	3.2e-11	6.4e-36	6.4e-36	3.2e-42	3.2e-47	3.2e-47
END		314	391	378	345	385	390	378	378	380
STAR T AA		241	233	240	202	224	224	241	241	241
CHAI N ID			æ	g	4	¥	¥	∢		
EDB TD		lap4	laui	laui	1bjf	1bjf	1bjf	1cdm	1cli	Icil
SEQ NO.		1799	1799	1799	1799	1799	1799	1799	1799	1799

Coumpound PDB annotation		CALMODULIN (VERTEBRATE)	CALMODULIN (VERTEBRATE); CALCIUM-BINDING PROTEIN ICMF 6 CHAIN: NULL; ICMF 7 CALMODULIN APO TR2C-DOMAIN; ICMF 9	CALMODULIN (VERTEBRATE); CALCIUM-BINDING PROTEIN ICMF 6 CHAIN: NULL; 1CMF 7 CALMODULIN APO TR2C-DOMAIN; 1CMF 9	CHAIN: A BLOOD CLOTTING HELICAL, EF- HAND, BLOOD CLOTTING	CARDIAC TROPONIN C; STRUCTURAL PROTEIN HELLX-CHAIN: A;	CARDIAC TROPONIN C; STRUCTURAL PROTEIN HELIX-CHAIN: A;	CALMODULIN; CHAIN: A; METAL TRANSPORT CALMODULIN, HIGH RESOLUTION, DISORDER	CALMODULIN; CHAIN: A; TRANSPORT PROTEIN CALCIUM BINDING, EF HAND, FOUR-HELIX BUNDLE	CALMODULIN; CHAIN: A; TRANSPORT PROTEIN CALCIUM BINDING, EF HAND, FOUR-HELIX BUNDLE	TROPONIN C; CHAIN: A; CONTRACTILE PROTEIN TROPONIN C-TROPONIN I INTERACTION,	CARDIAC, MUSCLE PROTEIN, 2 CALCIUM BINDING PROTEIN	CARDIAC, MUSCLE PROTEIN, 2 CALCIUM BINDING PROTEIN TROPONIN C; CHAIN: A; CONTRACTILE PROTEIN TROPONIN C-TROPONIN I INTERACTION, CARDIAC, MUSCLE PROTEIN, 2 CALCIUM BINDING PROTEIN	TEIN
	D score	CALMODU 1CLL 3	CALMODU ICMF 6 CH	CALMODU ICMF 6 CH	APO CIB; CHAIN: A	CARDIAC CHAIN: A;	CARDIAC CHAIN: A;	CALMODU	CALMODU	CALMODU	TROPONIN		TROPONIN	TROPONIN C; CH. CALCIUM-BINDIN NCS-1; CHAIN: A:
┝	score		0.13	-0.06	09.0	0.07	69.0	0.12	09:0	0.16	0.21		0.18	0.18
Verify	score		0.73	0.43	0.01	90.0	0.16	0.13	0.40	0.44	0.25		0.10	0.10
Psi Blast			4.8e-11	1.6e-25	3.2e-20	1.4e-12	8e-36	1.3e-44	8e-11	3.2e-24	9.6e-10		1.36-19	1.3e-19 3.2e-15
END	AA		309	378	388	306	379	378	309	378	306		379	379
STAR	TAA		242	310	241	183	241	241	247	316	238		313	221
CHAI	a z				¥	⋖	¥	Ą	A	A	A		Ą	4 4
PDB	1		1cmf	1cmf	1dgv	1dtl	 IJPI	lexr	1/31	1671	1fi5		IfiS	Iffiw 1
SEQ	9 <u>ö</u>		1799	1799	1799	1799	1799	1799	1799	1799	1799	1700	66/1	1799

PDB annotation	GUANYLYL CYCLASE 2 REGULATION	CALCIUM-REGULATED MUSCLE CONTRACTION MUSCLE	CONTRACTION, CALCIUM-	BINDING, TROPONIN, E-F HAND, 2 OPEN CONFORMATION	REGULATORY DOMAIN, CALCIUM- REGULATED 3 MUSCLE	CONTRACTION	CALCIUM-REGULATED MUSCLE	CONTRACTION MUSCLE CONTRACTION, CALCIUM-	BINDING, TROPONIN, E-F HAND, 2	PEGII ATOPY DOMAIN CALCHIM	REGULATED 3 MUSCLE	CONTRACTION	CALCIUM-BINDING PROTEIN EF- HAND 17NY 14	CALCHA DE DE LE DOCTEDIO DE	CALCIUM-BINDING PROTEIN EF- HAND 1TNX 14										
Coumpound	CHAIN; A;	TROPONIN C; CHAIN: NULL;					TROPONIN C; CHAIN: NULL;						TROPONIN C; ITNX 4 CHAIN:	TROBONING: 1TRIV A CITA IN:	IKOPONIN C; I I NX 4 CHAIN: NULL; ITNX 5	CONTRACTILE SYSTEM PROTEIN TROPONIN C 170P 3	CONTRACTILE SYSTEM	PROTEIN TROPONIN C 1 TOP 3	CALCTUM BINDING PROTEIN	CALMODULIN (/TR=2=C\$	FRAGMENT COMPRISING	RESIDUES 78 - 148 ITRC 3 OF	THE INTACT MOLECULE) ITRC	CALCIUM BINDING PROTEIN	CALMODULIN (/TR=2=C\$
SEQFOL D score							63.35						69.19			64.51									
PMF score		0.48												900	0.05		0.41		-0.05					-0.09	
Verify score		0.10			- · · - ·									600	-0.22		0.02		0.28					0.03	
Psi Blast		3.2e-37					3.2e-37			•			4.8e-36	1 00 36	4.86-30	3.2e-38	3.2c-38		6.4e-11	-				1.1e-24	
END AA		378					379						378	270	3/6	382	378		306					378	
STAR T AA		232					233						233	226	730	227	236		242					314	
CHAI N ID																			٧					4	
PDB ID		ltcf					Itcf						1tmx	11	XIII	Itop	1top		1trc					1trc	
SEQ ID NO:		1799					1799						1799	1700	1/99	1799	1799		1799					1799	

PDB annotation		CALMODULIN, CALCTUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCTUM-BINDING PROTEIN/PEPTIDE)	CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)	CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)	MUSCLE PROTEIN MYOSIN, CALCIUM BINDING PROTEIN, MUSCLE PROTEIN	CALCTUM-BINDING PROTEIN CTNC; CARDIAC, MUSCLE, REGULATORY, CALCTUM-BINDING PROTEIN	CALCIUM-BINDING PROTEIN CTNC; CARDIAC, MUSCLE, REGULATORY, CALCIUM-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZNC FINGER/DNA) COMPLEX (ZNC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN
Coumpound	FRAGMENT COMPRISING RESIDUES 78 - 148 ITRC 3 OF THE INTACT MOLECULE) ITRC	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	SCALLOP MYOSIN; CHAIN: A, B, C;	TROPONIN C; CHAIN: NULL;	TROPONIN C; CHAIN: NULL;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; 'CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;
SEQFOL D score			56.76						
PMF score		0.07		0.33	0.04	0.13	0.12	0.35	0.98
Verify		-0.21		0.12	0.23	0.36	0.19	0.03	0.03
Psi Blast		1.6e-14	3.2e-46	3.2e-46	1.4e-20	9.6e-10	1.3e-19	1.6e-12	4.8e-19
END		309	381	378	382	306	379	210	238
STAR T AA		081	239	241	241	238	313	120	158
CHAI N ID		V	4	¥	ပ			Ą	¥
aga ID		lvrk	lvrk	lvrk	Iwdc	3ctn	3cm	laih	lalh
SEQ ID		1799	1799	1799	1799	1799	1799	1801	1801

PDB annotation		TIDE; COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), DING ZINC FINGER, DNA-BINDING PROTEIN	IIDE; COMPLEX (ZINC FINGERDNA) COMPLEX (ZINC FINGER, DNA-BINDING PROTEIN	TIDE; COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), DING ZINC FINGER, DNA-BINDING PROTEIN	TIDE; COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), DING ZINC FINGER, DNA-BINDING PROTEIN	TIDE; COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), DING ZINC FINGER, DNA-BINDING PROTEIN	TIDE; COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), DING ZINC FINGER, DNA-BINDING PROTEIN	TIDE; COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	TIDE; COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA),
Coumpound	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX
SEQFOL D score	84.50								
PMF		1.00	0.41	0.57	99.0	0.78	0.15	1.00	1.00
Verify score		0.23	-0.16	0.22	0.11	0.07	0.17	0.45	0.54
Psi Blast	4.5e-37	I.1e-29	9.6e-22	1.6e-19	3e-19	3e-21	3.2e-26	8e-30	9e-31
END	296	377	377	404	454	481	481	509	510
STAR T AA	214	270	270	298	298	353	382	429	429
CHAI N ID	V	V	¥	V	A	Ą	Ą	¥	А
PDB ID	lalh	lalh	lalh	lalh	lalh	lalh	lalh	lalh	lalh
SEQ ID NO:	1801	1801	1801	1801	1801	1801	1801	1801	1801

PDB CHAI STAR END Psi Blast Verify PMF S ID N ID T AA AA score score	STAR END Psi Blast Verity PMF TAA AA score	END Psi Blast Verify PMF AA score score	Psi Blast Verity PMF score	Verify PMF score	PMF		V 1	SEQFOL D score	Coumpound Oi IGONIICI FOTTDE RINDING	PDB annotation ZINC FINGER DIVA-BINDING
									SITE; CHAIN: B, C;	ZINC FINGER, DIAS-BINDING PROTEIN
lalh A 457 537 1.1e-30 -0.09 1.00	457 537 1.1e-30 -0.09	537 1.1e-30 -0.09	1.1e-30 -0.09	-0.09		1.00	•		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONICLEOTIDE BINDING	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC PINGER, DNA-BINDING
									SITE; CHAIN: B, C;	PROTEIN
Ialh A 485 565 7.5e-34 0.28 1.00	485 565 7.5e-34 0.28	565 7.5e-34 0.28	7.5e-34 0.28	0.28		1.00		i	QGSR ZINC FINGER PEPTIDE; CHAIN: A: DUPLEX	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA)
								-	OLIGONUCLEOTIDE BINDING SITE: CHAIN: B. C:	ZINC FINGER, DNA-BINDING PROTEIN
1mey C 119 210 8e-30 0.10 0.36	119 210 8e-30 0.10	210 8e-30 0.10	8e-30 0.10	0.10		0.36			DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
								**	CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
									11.C. 12.1.	CRYSTAL STRUCTURE, COMPLEX
										(ZINC FINGER/DNA)
lmey C 157 238 1.4e-37 0.42 1.00	157 238 1.4e-37 0.42	238 1.4e-37 0.42	1.4e-37 0.42	0.42		1.00			DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
									CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
									PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE COMPLEX
						-				(ZINC FINGER/DNA)
Imey C 185 266 3.2e-47 0.55 1.00	185 266 3.2e-47 0.55	266 3.2e-47 0.55	3.2e-47 0.55	0.55		1.00			DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
					-				CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
									PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
										CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
Imey C 213 294 3.2c-48 0.35 1.00	213 294 3.2c-48 0.35	294 3.2e-48 0.35	3.2e-48 0.35	0.35		1.00			DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
								-	CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
									PROTEIN; CHAIN: C, F, G;	NTERACTION, PROTEIN DESIGN, 2
										CRYSTAL STRUCTURE, COMPLEX
			┪							(ZINC FINGER/DNA)
Imey C 241 322 4.8e-49 0.56 1.00	241 322 4.8e-49 0.56	322 4.8e-49 0.56	4.8e-49 0.56	0.56		1.00			DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
									CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
									PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
										CRYSTAL STRUCTURE, COMPLEX

SEQ ID	PDB ID	CHAI N ID	STAR T AA	END	Psi Blast	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
_										(ZINC FINGER/DNA)
1801	Imey	၁	241	323	4.8e-49			101.14	DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
				_			-		PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
						-				CRYSTAL STRUCTURE, COMPLEX
+	,	,	850	200	6,	,00	,		2 4 6 1 14 17 7 17 17	(ZINC FINGER/DNA)
1801	Imey	ပ	269	377	4.8e-40	-0.06	15.0		DNA; CHAIN: A, B, D, E; CONSENSIS ZINC FINGER	COMPLEX (ZINC FINGER/DNA) ZINC FINGER PROTEIN-DNA
						· -			PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
										CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
1801	Imey	၁	297	453	1.1e-20	0.01	-0.17		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
									CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
									PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
—										CRYSTAL STRUCTURE, COMPLEX
1										(ZINC FINGEKUNA)
1801	Imey	၁	353	481	1.3e-22	0.42	0.70		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER PROTEIN-DNA
					•				PROTEIN CHAIN: C. F. G.	INTERACTION, PROTEIN DESIGN, 2
_										CRYSTAL STRUCTURE, COMPLEX
				_						(ZINC FINGER/DNA)
1801	Imey	C	357	453	8e-41	0.41	0.24		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
			_						CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
									PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
						_				CRYSTAL STRUCTURE, COMPLEX . (ZINC FINGER/DNA)
1801	Imey	၁	381	481	3.2e-45	0.26	0.07		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
									CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
	-								PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
									•	CRYSTAL STRUCTURE, COMPLEX
ᅱ										(ZINC FINGER/DNA)
1081	lmey	ပ	428	209	1.6e-49	0.51	1.00		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
									PROTEIN CHAIN: C F G.	NTER ACTION PROTEIN DESIGN 2
1]			INCIDING CAMMIN. C., 1, C.	חיותיים חיותיים יויים יויים ויים ויי

PDB annotation	CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER PROTFIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) TFIIIA; 5S	GENE; NMR, TFIIIA, PROTEIN, DNA,	TRANSCRIPTION FACTOR, 5S RNA 2	GENE, DNA BINDING PROTEIN,	ZINC FINGER, COMPLEX 3	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) COMPLEX	(TRANSCRIPTION	REGULATION/DNA), RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC	FINGER PROTEIN	COMPLEX (TRANSCRIPTION	REGULATION/DNA) COMPLEX	(TRANSCRIPTION	REGULATION/DNA), RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN
Coumpound		DNA; CHAIN: A, B, D, E;	PROTEIN; CHAIN; C, F, G;	•	DNA: CHAIN: A. B. D. E.	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		TRANSCRIPTION FACTOR IIIA;	CHAIN: A; 5S RNA GENE;	CHAIN: E, F;						TFIIIA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F;					TFIIIA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F;			
SEQFOL D score																								114.65				-	
PMF score		66'0			1.00				-0.01								0.22				,								
Verify score		-0.03	·		0.25				0.23								80.0												
Psi Blast		1.6e-49			1.6e-49			•	6.4e-17								1.4e-22							3e-61					
END AA		537			565	}			481			•					247							325	_,				
STAR T AA		456			484	:			382								112							157					
CHAI		ပ			O	١			A								Ą							Ą					
PDB ID		1mey			Imev	ì			1#3								9,11							1 1 20					
SEQ ID NO:		1801			1801				1801								1801							1801		_			

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PDB annotation	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC
Coumpound	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;
SEQFOL D score					
PMF	66.0	1.00	0.24	0.28	66'0
Verify score	0.37	0.15	0.04	-0.15	0.23
Psi Blast	9.6e-31	1.4e-35	1.3e-25	1.3e-34	1.6e-35
END	303	324	495	547	265
STAR T AA	158	186	298	382	429
CHAI	∢	∢	∢	∢	¥
PDB 1D	11.66	11f6	14f6	1tf6	1166
SEQ NO.	1801	1801	1801	1801	1801

PDB annotation	FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION.	INITIATOR ELEMENT, YYI, ZINC 2	FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX	(TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	ENGER PROTEIN DAY PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION	COMPLEX (TRANSCRIPTION
Соитроина		YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA:	CHAIN: A, B;			YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	Circuit A, b,				YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;					YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;				YY1; CHAIN: C; ADENO-
SEQFOL D score						92.90																						
PMF		1.00						-					1.00								1.00							1.00
Verify score		0.25											0.35								0.15							0.17
Psi Blast		6e-43				7.5e-48							7.5e-48								7.5e-51							1.6e-32
END		266				267							294								322							322
STAR T AA		157				159							186								217							221
CHAI N ID		ပ				ပ							ပ								၁							ပ
PDB ID		Juk				lubd				_			lubd								pqni							lubd
SE Se Se Se Se Se Se Se Se Se Se Se Se Se		1801				1801							1801						_		1801							1801

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PDB annotation	REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION.
Coumpound	ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INTIATOR ELEMENT DNA;
SEQFOL D score					
PMF		0.99	-0.02	0.64	0.36
Verify score		-0.16	0.04	0.23	0.26
Psi Blast		3.2e-26	1.6e-24	1.5e-30	6.4e-29
END		377	453	509	481
STAR T AA		249	305	351	360
CEAI		U	O	၁	ပ
PDB ID		PqnI	Jubd	lubd	lubd
SEQ NO:		1801	1801	1801	1801

PDB annotation	INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG I; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YYI, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	
Coumpound	CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YY1; CHAIN: C; ADENO-ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	COMPLEX(TRANSCRIPTION REGULATION/DNA) TRAMTRACK PROTEIN (TWO ZINC-FINGER PEPTIDE) COMPLEXED WITH 2DRP 3
SEQFOL D score					
PMF score		0.65	1.00	86:0	0.10
Verify score		0.07	0.30	-0.10	0.53
Psi Blast		3.2e-31	4.5e-40	8e-34	3e-18
END		509	565		377
STAR T AA		387	454	464	294
CHAI N ID		၁	၁	O	∀
PDB CI		lubd	1 lpbd	lubd	2drp
SEQ ID NO:		1801	1801	1801	1801

	PDB CHAI	I STAR T AA	END AA	Psi Blast	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
1		_						DNA 2DRP 4	
2gli	4	157	296	1.1e-58			100.58	ZINC FINGER PROTEIN GL11; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
2gli	⋖	157	296	3e-57	0.25	1.00		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
2gli	∢	185	322	1.1e-58	0.15	0.90		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
2gli	٧	249	404	3.2e-23	0.01	0.81		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
2gli	¥	297	511	1.1e-37	0.11	0.49		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
2gli	¥	360	508	8e-30	0.15	-0.02		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
2gli	A	424	536	6.4e-32	0.40	0.87		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
2gli	A	428	565	1.5e-48	0.25	0.75		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
2gli	¥	436	564	1.6e-33	0.39	69.0		ZINC FINGER PROTEIN GLII;	COMPLEX (DNA-BINDING

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PDB annotation	PROTEINDNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	LECTIN CL-QPDWG; IAFB 7 C-TYPE LECTIN, CALCIUM-BINDING PROTEIN 1AFB 22	SUGAR BINDING PROTEIN C. TYPE LECTIN, CRD, SP-D, COLECTIN, ALPHA-HELICAL COLLED- 2 COIL, LUNG SURFACTANT, SUGAR BINDING PROTEIN	NK CELL NK CELL, RECEPTOR, C- TYPE LECTIN, C-TYPE LECTIN- LIKE, NKD	NK CELL NK CELL, RECEPTOR, CTYPE LECTIN-LIKE, NKD	COLLAGEN BINDING PROTEIN IX-BP; COAGULATION FACTOR IX-BINDING, HETERODIMER, VENOM, HABU 2 SNAKE, C-TYPE LECTIN SUPERFAMILY, COLLAGEN BINDING PROTEIN	MEMBRANE PROTEIN SP-A; SP- A:PHOSPHOLIPID MOLOLAYER COMPLEX	SIGNALING PROTEIN HEPATIC LECTIN HI; C-TYPE LECTIN CRD	SIGNALING PROTEIN HEPATIC LECTIN HI; C-TYPE LECTIN CRD	HEMATOPOIETIC CELL RECEPTOR ACTIVATION INDUCER MOLECULE (AIM) EA I HEMATOPOIETIC CELL
Coumpound	CHAIN: A; DNA; CHAIN: C, D;	MANNOSE-BINDING PROTEIN- A; 1AFB 4 CHAIN: 1, 2, 3; 1AFB 5	LUNG SURFACTANT PROTEIN D; CHAIN: A, B, C;	CD94; CHAIN: NULL;	CD94; CHAIN: NULL;	COAGULATION FACTOR IX- BINDING PROTEIN A; CHAIN: A; COAGULATION FACTOR IX- BINDING PROTEIN B; CHAIN: B;	SURFACTANT PROTEIN A; CHAIN: A;	ASIALOGLYCOPROTEIN RECEPTOR I; CHAIN: A;	ASIALOGL YCOPROTEIN RECEPTOR 1; CHAIN: A;	EARLY ACTIVATION ANTIGEN CD69; CHAIN: A;
SEQFOL D score		59.81		74.73		67.59				
PMF score			0.83		0.98		0.18	1.00	0.48	0.65
Verify score			0.35		0.57		90.0	0.47	0.35	0.79
Psi Blast		1,5e-21	3e-31	4.5e-29	4.5e-29	8e-25	1.2e-27	1.5e-28	1.6e-28	1.5e-27
END AA		252	249	253	251	250	249	250	252	250
STAR T AA		68	118	123	126	125	103	126	126	125
CHAI N ID		-	∢			¥	∢	¥	4	¥
PDB ID		lafb	1508	1b6e	1b6e	1 <u>6j3</u>	1du8	1dv8	1dv8	1e87
SEQ ID NO:		1802	1802	1802	1802	1802	1802	1802	1802	1802

Coumpound PDB annotation	RECEPTOR, LEUCOCYTE, C-TYPE LECTIN-LIKE, 2 NKD, KLR	NG PROTEIN; C-TYPE LECTIN ALPHA-HELICAL JLL; 1HUP 5 COILED-COIL 1HUP 12				S		E, F; BINDING, C-TYPE LECTIN, GLA-	MOTIF, LOOP EXCHANGED DIMER																65	67.0	63.63	. 600
145	<u></u>	_				S		CHAIN: A, B, C, D, E, F; BINDI		IIOM	OSTATHINE; CHAIN:		, A												65	63.00	. 600	. 63.63
	<u> </u>		S	S	S			<u>.</u>	OW		_	(LEC	\top	-											(5)	65 67	(i) G	65 G
MANNOSE-BINDING I HUP 4 CHAIN: NULL COAGULATION FACT IXX-BINDING PROTE CHAIN: A, B, C, D, E, F	MANNOSE-BINDING I HUP 4 CHAIN: NULL COAGULATION FACT IXX-BINDING PROTE CHAIN: A, B, C, D, E, I	COAGULATION FACT IXX-BINDING PROTE CHAIN: A, B, C, D, E, I	CHAIN: A, B, C, D, E, I			COAGULATION FACT	IX/X-BINDING PROTE	CHAIN: A, B, C, D, E, F			LITHOSTATHINE; CH	LITHOSTATHINE; CH NULL	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH	LITHOSTATHINE; CH	LITHOSTATHINE; CH LITHOSTATHINE; CH LITHOSTATHINE; CH	LITHOSTATHINE; CH LITHOSTATHINE; CH LITHOSTATHINE; CH LITHOSTATHINE; CH	LITHOSTATHINE; CH LITHOSTATHINE; CH LITHOSTATHINE; CH LITHOSTATHINE; CH	LITHOSTATHINE; CH	LITHOSTATHINE; CH LITHOSTATHINE; CH LITHOSTATHINE; CH MHC CLASS I H-2DD I	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH LITHOSTATHINE; CH MHC CLASS I H-2DD I CHAIN; CHAIN: A; BE	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH LITHOSTATHINE; CH CHAN; CHAIN: A; BE MICROGLOBULN; CI	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH LITHOSTATHINE; CH MHC CLASS I H-2DD I CHAIN; CHAIN: A; BE MICROGLOBULIN; Cf HIV ENVELOPE	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH LITHOSTATHINE; CH MHC CLASS I H-2DD I CHAIN; CHAIN: A; BE MICROGLOBULIN; CI HIV ENVELOPE GLYCOPROTEIN 120 I	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH LITHOSTATHINE; CH MHC CLASS I H-2DD I CHAIN; CHAIN: A; BE MICROGLOBULIN; CF HIV ENVELOPE GLYCOPROTEIN 120 I CHAIN: P; LY49A; CH	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH LITHOSTATHINE; CH MHC CLASS I H-2DD I CHAIN; CHAIN: A; BE MICROGLOBULIN; CF HIV ENVELOPE GLYCOPROTEIN 120 I CHAIN: P; LY49A; CH	LITHOSTATHINE; CH NULL LITHOSTATHINE; CH LITHOSTATHINE; CH MHC CLASS I H-2DD I CHAN; CHAIN: A; BE MICROGLOBULIN; CF HIV ENVELOPE GLYCOPROTEIN 120 I CHAIN: P; LY49A; CH
				CHA			-XXI	CHA	_																			
D score		63.07	65.37			61.47			_		66.78	66.78	66.78	66.78	66.78	92.38	66.78	66.78	66.78	66.78	66.78	74.13	66.78	66.78	66.78	74.13	74.13	74.13
score									_				0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	09.0	09:0	0.60	0.60	0.60	0.60
score													0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
		3e-27	1e-24			6e-25			_		3e-25	3e-25	3e-25 3e-28	3e-25 3e-28	3c-25 3c-28	3e-25 3e-28	3e-25 3e-28 3e-28	3e-25 3e-28 3e-28	3e-25 3e-28 3e-28	3e-25 3e-28 3e-28	3e-25 3e-28 3e-28 1.5e-30	3e-25 3e-28 3e-28 1.5e-30	3e-25 3e-28 3e-28 1.5e-30	3e-25 3e-28 3e-28 1.5e-30	3e-25 3e-28 3e-28 1.5e-30	3e-25 3e-28 3e-28 1.5e-30	3e-25 3e-28 3e-28 1.5e-30	3e-25 3e-28 3e-28
AA B		249	250	·		252			_		252	252																
STAR T AA		86	125			125					126	126	126	126	126	126	126	114	114	114	114 114 113	114	114 114 114 1123	114 1114 1114	114 114 113	114 114 113	114 114 1123	114 114 113
CHAI			∢			B				_			A	A	A	A	4 4	4 4	4 4	A A	4 4 0	A A O	4 4 0	4 4 0	4 4 0	4 4 0	4 4 0	4 4 0
EDB EDB		Ihup	ix X			lixx	•			-	iii.	iii iii	 	70	 	 	 		 	 	 	 	 	 	 	 	 	
SEQ NO:		1802	1802			1802					1802	1802	1802	1802	1802	1802	1802 1802 1802	1802	1802	1802	1802 1802 1802 1802	1802	1802	1802	1802	1802	1802	1802

PDB annotation	COMPLEX (NK RECEPTOR/MHC CLASS I) H-2 CLASS I HISTOCOMPATIBILITY ANTIGEN, B2M; NK-CELL SURFACE GLYCOPROTEIN YE1/48, NK CELL, NHIBITORY RECEPTOR, MHC-I, C- TYPE LECTIN-LIKE, 2 HISTOCOMPATIBILITY, B2M, LY49, LY-49	LECTIN SUB-MBP-C; IRDL 9 C-TYPE LECTIN, CALCIUM-BINDING PROTEIN IRDL 20		ANTIFREEZE PROTEIN RECOMBINANT SEA RAVEN PROTEIN, SOLUTION BACKBONE FOLD, C- 2 TYPE LECTIN, ANTIFREEZE PROTEIN		LECTIN CL-QPDWG; 1AFB 7 C-TYPE LECTIN, CALCIUM-BINDING PROTEIN 1AFB 22	SUGAR BINDING PROTEIN C-TYPE LECTIN, CRD, SP-D, COLECTIN, ALPHA-HELICAL COILED- 2 COIL, LUNG SURFACTANT, SUGAR
Coumpound	MHC CLASS I H-2DD HEAVY CHAIN; CHAIN: A; BETA-2- MICROGLOBULIN; CHAIN: B; HIV ENVELOPE GLYCOPROTEIN 120 PEPTIDE; CHAIN: P; LY49A; CHAIN: C, D;	MANNOSE-BINDING PROTEIN- C; IRDL 6 CHAIN: 1, 2; IRDL 7	LECTIN MANNOSE-BINDING PROTEIN A (CLOSTRIPAIN FRAGMENT) (CL-MBP-A) IRTM 3 IRTM 96	SEA RAVEN TYPE II ANTIFREEZE PROTEIN; CHAIN: A;	LECTIN MANNOSE-BINDING PROTEIN A (LECTIN DOMAIN) COMPLEX WITH 2MSB 3 CALCIUM AND GLYCOPEPTIDE 2MSB 4	MANNOSE-BINDING PROTEIN- A; IAFB 4 CHAIN: 1, 2, 3; 1AFB 5	LUNG SURFACTANT PROTEIN D; CHAIN: A, B, C;
SEQFOL D score		61.44 -	63.45		61.86	60.17	
PMF	0.43			0.41			0.83
Verify score	0.81			0.52			0.35
Psi Blast	1.3e-27	1.2e-26	4.5e-23	1.3e-29	1.3e-25	1.5e-21	
END	253	251	252	250	251	291	288
STAR T AA	130	136	68	123	136	127	157
CHAI N ID	Ω	-	-	«	₹	_	4
PDB ID	1403	Irdi	1rtm	2afp	2msb	lafb	1508
SEQ NO.	1802	1802	1802	1802	1802	1803	1803

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PDB annotation	BINDING PROTEIN	NK CELL NK CELL, RECEPTOR, C- TYPE LECTIN, C-TYPE LECTIN- LIKE, NKD	NK CELL NK CELL, RECEPTOR, C- TYPE LECTIN, C-TYPE LECTIN- LIKE, NKD	COLLAGEN BINDING PROTEIN IX-	BP; IX-BP; COAGULATION FACTOR IX-BINDING, HETERODIMER,	VENOM, HABU 2 SNAKE, C-TYPE	LECTIN SUPERFAMILY, COLLAGEN	COLTAGEN BINDING PROTEIN IX-	BP; IX-BP; COAGULATION FACTOR	IX-BINDING, HETERODIMER,	VENOM, HABU 2 SNAKE, C-TYPE	LECTIN SUPERFAMILY, COLLAGEN	BINDING PROTEIN	MEMBRANE PROTEIN C-TYPE LECTIN-LIKE DOMAINS		MEMBRANE PROTEIN SP-A; SP-	A:PHOSPHOLIPID MOLOLAYER COMPLEX	SIGNALING PROTEIN HEPATIC	LECTIN HI; C-TYPE LECTIN CRD	SIGNALING PROTEIN HEPATIC	LECTIN HI; C-TYPE LECTIN CRD	HEMATOPOIETIC CELL RECEPTOR	ACTIVATION INDUCER MOLECULE	(AIM), EA 1, HEMATOPOIETIC CELL RECEPTOR, LEUCOCYTE, C-TYPE
Coumpound		CD94; CHAIN: NULL;	CD94; CHAIN: NULL;	COAGULATION FACTOR IX-	BINDING PROTEIN A; CHAIN: A; COAGULATION FACTOR IX-	BINDING PROTEIN B; CHAIN:	B.	COAGIT ATION FACTOR IX-	BINDING PROTEIN A; CHAIN:	A; COAGULATION FACTOR IX-	BINDING PROTEIN B; CHAIN:	B;		FLAVOCETIN-A: ALPHA SUBUNIT; CHAIN: A;	FLAVOCETIN-A: BETA SUBUNIT; CHAIN; B	SURFACTANT PROTEIN A;	CHAIN: A;	ASIALOGLYCOPROTEIN	RECEPTOR 1; CHAIN: A;	ASIALOGLYCOPROTEIN	RECEPTOR 1; CHAIN: A;	EARLY ACTIVATION ANTIGEN	CD69; CHAIN: A;	
SEQFOL D score		73.97		68.01											***		<u>. – </u>		:					
PMF score			0.98					0.48	2					-0.06		0.18		0.46		1.00		0.65		
Verify score			0.57					0.16) :					0.38		90.0		0.13		0.47		6.79		
Psi Blast		4.5e-29	4.5e-29	1c-24				16-24	2					4.5e-24		1.2e-27		4.8e-25		1.5e-28	•	1.5e-27		
END		292	290	289				288	}					290		288		288		289		585		
STAR T AA		162	165	164				165	}					165		142		165		165		164		
CHAI N ID				Ą				A	:					B		¥		A		٧		¥		
PDB ID		1b6e	1b6e	1bj3				1hi3	}					1c3a		1du8		1dv8		ldv8		1e87		
SEQ NO:		1803	1803	1803				1803	}					1803		1803		1803		1803		1803		

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PDB annotation	LECTIN-LIKE, 2 NKD, KLR	SUGAR BINDING PROTEIN C.TYPE LECTIN, MANNOSE RECEPTOR	C-TYPE LECTIN ALPHA-HELICAL	C.TVPF I ECTIN AT PHA. HET ICAL	COLLED-COLL 1HUP 12	COAGULATION FACTOR BINDING	IX/X-BP COAGULATION FACTOR	BINDING, C-TYPE LECTIN, GLA-	DOMAIN 2 BINDING, C-TYPE CRD	MOLIE, LOUP EACHANGED DIMER	TYX BE COACITY ATTONING	BINDING C-TYPE I ECTIN GLA-	DOMAIN 2 BINDING C-TYPE CRD	MOTIF, LOOP EXCHANGED DIMER	COAGULATION FACTOR BINDING	IX/X-BP COAGULATION FACTOR	BINDING, C-TYPE LECTIN, GLA-	DOMAIN 2 BINDING, C-TYPE CRD	MOTIF, LOOP EXCHANGED DIMER	COAGULATION FACTOR BINDING	IX/X-BP COAGULATION FACTOR	BINDING, C-TYPE LECTIN, GLA-	DOMAIN 2 BINDING, C-TYPE CRD	MOTIF, LOOP EXCHANGED DIMER	PANCREATIC STONE INHIBITOR	PANCREATIC STONE INHIBITOR,	LECTIN	PANCREATIC STONE INHIBITOR	PANCICEATIC STONE INHIBITOR, LECTIN	METAI DIMINIC DO OTEN
Coumpound		MACROPHAGE MANNOSE RECEPTOR; CHAIN: A, B;	MANNOSE-BINDING PROTEIN;	MANNOSE-BINDING PROTEIN:	IHUP 4 CHAIN: NULL; 1HUP 5	COAGULATION FACTORS	IX/X-BINDING PROTEIN;	CHAIN: A, B, C, D, E, F;		COLOID ATTORITACTORS	COACOLATION FACTORS	CHAIN: A B C D F F.			COAGULATION FACTORS	IX/X-BINDING PROTEIN;	CHAIN: A, B, C, D, E, F;			COAGULATION FACTORS	IX/X-BINDING PROTEIN;	CHAIN: A, B, C, D, E, F;			LITHOSTATHINE; CHAIN:	NULL		LITHOSTATHINE; CHAIN:	NOLL	1 TTHOSTATHINE: CHAIN: A:
SEQFOL D score			63.43			65.74									61.53													67.30		
PMF score		0.95		0.40	9					97.0	9									0.48	-				0.89					0.86
Verify score		0.62		0 33	65.0					223	75.0									0.38					0.77					0.75
Psi Blast		1.5e-25	3e-27	30-27	36-27	1e-24				1. 24	15-24				6e-25		_			6e-25			-		3e-25			3e-25		36-28
END AA		288	288	280	207	289				000	007				291					290					291			291		291
STAR T AA		165	150	164	<u> </u>	164				166	3				164					165					165			165		153
CEAI N ID		Ą				A					ς .				В					щ										A
PDB ID		legg	1hup	Thun	d d	lixx				\top	 Y				lixx	-				lix X					liit] <u>;</u>		ladd
SEQ ID NO:		1803	1803	1803	6	1803				1003	1967				1803					1803					1803			1803		1803

nnd PDB annotation	PANCREATIC STONE PROTEIN, PSP, PANCREATIC STONE INHIBITOR, LITHOSTATHINE	CHAIN: A; METAL BINDING PROTEIN PANCREATIC STONE PROTEIN, PSP; PANCREATIC STONE INHIBITOR, LITHOSTATHINE		20 PEPTIDE; BZM; NK-CELL SURFACE CHAIN: C, D; INHIBITORY RECEPTOR, MHC-1, C-	BETA-2- CLASS D H-2 CLASS I		B2M; NK-CELL SURFACE 20 PEPTIDE:		1 YPE LECTIN-LIKE, 2 HISTOCOMPATIBILITY, B2M, LY49,	I. F.CTIN SUB-MBP-C: 1RDL 9 C-TYPE		NG PROTEIN- LECTIN SUB-MBP-C; IRDL 9 C-TYPE 1, 2; IRDL 7 LECTIN, CALCIUM-BINDING		Ciamari
Соимроии		LITHOSTATHINE; CHAIN: A;	MHC CLASS I H-2DD HEAVY CHAIN; CHAIN: A; BETA-2- MICROGLOBULIN; CHAIN: B;	HIV ENVELOPE GLYCOPROTEIN 120 PEPTIDE; CHAIN: P; LY49A; CHAIN: C, D;	MHC CLASS I H-2DD HEAVY CHAIN: CHAIN: A: BETA-2-	MICROGLOBULIN; CHAIN: B;	HIV ENVELOPE GLYCOPROTEIN 120 PEPTIDE;	CHAIN: P; LY49A; CHAIN: C, D;		MANNOSE-BINDING PROTEIN-	C; IRDL 6 CHAIN: 1, 2; IRDL 7	MANNOSE-BINDING PROTEIN- C; 1RDL 6 CHAIN: 1, 2; 1RDL 7		I SOTINI MANINOSE BINITINIS
SEQFOL D score		73.96								61.70	}			07 79
PMF			0.60		0.43							0.70		
Verify score			09.0		0.81							0.41		
Psi Blast		3e-28	1.5e-30		1.3e-27					1.2e-26	? }	1.2e-26	,	4 50 02
END AA		291	292		292					290	}	289		106
STAR T AA		153	162		 169		0			175)	176		127
CEAI		A	ບ		Ω					_	•	-		
PDB ID		Iqdd	1403		1403					1rd		1rdi		1,000
SEQ EQ	į	1803	1803		1803					1803		1803		1803

PDB annotation		ANTIFREEZE PROTEIN RECOMBINANT SEA RAVEN PROTEIN, SOLUTION BACKBONE FOLD, C- 2 TYPE LECTIN, ANTIFREEZE PROTEIN				HYDROI ASE CALCINEI IP IN:	HYDROLASE, PHOSPHATASE, IMMUNOSUPPRESSION					CALCIUM-BINDING PROTEIN CALMODULIN APO TR2C-DOMAIN;	METAL TRANSPORT CALMODULIN, HIGH RESOLUTION, DISORDER
Coumpound	3 IRTM 96	SEA RAVEN TYPE II ANTIFREEZE PROTEIN; CHAIN: A;	LECTIÑ MANNOSE-BINDING PROTEIN A (LECTIN DOMAIN) COMPLEX WITH 2MSB 3 CALCIUM AND GLYCOPEPTIDE 2MSB 4	LECTIN MANNOSE-BINDING PROTEIN A (LECTIN DOMAIN) COMPLEX WITH 2MSB 3	GLYCOPEPTIDE 2MSB 4	SED IN ETTER ECONINE	PHOSPHATASE 2B; CHAIN: A, B;	CALCIUM-BINDING PROTEIN CALMODULIN COMPLEXED	WITH CALMODULIN-BINDING DOMAIN OF 1CDM 3	CALMODULIN-DEPENDENT PROTEIN KINASE II 1CDM 4	CALCIUM-BINDING PROTEIN CALMODULIN (VERTEBRATE) ICLL 3	CALMODULN (VERTEBRATE); ICMF 6 CHAIN: NULL; ICMF 7	CALMODULIN; CHAIN: A;
SEQFOL D score			61.86										
PMF score		0.41		0.54		0.07	ò.	0.36			0.49	09.0	0.93
Verify score		0.52		0.57		01.0	0.10	-0.07			-0.04	0.23	0.11
Psi Blast		1.3c-29	1.3e-25	1.3e-25		1000	+7-00°+	1.6e-29			8e-36	8e-32	9.6e-34
END		289	290	288		6	3	18			83	18	81
STAR T AA		162	175	176			•	-			_	∞	-
CHAI N ID		V	<	⋖		2	۹ .	∢					A
PDB tr		2afp	2msb	2msb				lcdm			loll	lcmf	lexr
SEQ NO.		1803	1803	1803		1001	1	1804			1804	1804	1804

PDB annotation	TRANSPORT PROTEIN CALCTUM BINDING, EF HAND, FOUR-HELIX BUNDLE	CALCIUM-REGULATED MUSCLE CONTRACTION MUSCLE CONTRACTION, CALCIUM- BINDING, TROPONIN, E-F HAND, 2 OPEN CONFORMATION REGULATORY DOMAIN, CALCIUM- REGULATED 3 MUSCLE CONTRACTION			CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEINPEPTIDE)	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP,RIBONUCLEOPROTEIN	COMPLEX (NUCLEAR PROTEINRNA) COMPLEX (NUCLEAR PROTEINRNA), RNA, SNRNP, RIBONUCLEOPROTEIN	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL
Coumpound	CALMODULIN; CHAIN: A;	TROPONIN C; CHAIN: NULL;	CONTRACTILE SYSTEM PROTEIN TROPONIN C 1TOP 3	CALCIUM BINDING PROTEIN CALMODULIN (/TR=2=C\$ FRAGMENT COMPRISING RESIDUES 78 - 148 ITRC 3 OF THE INTACT MOLECULE) ITRC	CALMODULIN; CHAIN: A; RS20; CHAIN: B;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A; CHAIN: A, C; U2 B"; CHAIN: B, D;	U2 RNA HAIRPIN IV; CHAIN: Q, R; U2 A'; CHAIN: A, C; U2 B"; CHAIN: B, D;	INTERNALIN B; CHAIN: A;
SEQFOL D score								
PMF score	0.89	1:00	0.95	0.98	0.98	1.00	0.99	0.98
Verify score	0.39	0.23	0.25	0.52	0.30	0.60	0.58	0.57
Psi Blast	8e-30	1.6e-24	1.6e-24	1.4e-30	3.2e-35	8e-24	8e-24	6.4e-34
END	18	18	18	81	82	250	250	227
STAR T AA	14	-	_	12	_	114	114	44
CHAI N ID	ď			∢	₹	¥	ပ	٧
PDB CI	1171	ltof	Itop	Itrc	lvrk	la9n	la9n	140b
SEQ No:	1804	1804	1804	1804	1804	1806	1806	1806

	Т	1							Ι					Т			٦	_	·	٦
PDB annotation	ADHESION	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	TRANSFERASE CRYSTAL STRUCTURE, RAB GERANYLGERANYLTRANSFERASE, 2.0 A 2 RESOLUTION, N- FORMYLMETHIONINE, ALPHA SUBUNIT. BETA SUBUNIT	`	TRANSFERASE CRYSTAL STRUCTURE, RAB	GERANYLGERANYLTRANSFERASE,	FORMYLMETHIONINE, ALPHA	SUBUNIT, BETA SUBUNIT	CONTRACTILE PROTEIN LEUCINE-	CYLINDER, DYNEIN, 2	CHLAMYDOMONAS, FLAGELLA	CONTRACTILE PROTEIN LEUCINE	RICH REPEAT, BETA-BETA-ALPHA CYLINDER, DYNEIN, 2 CHI AMYDOMONAS, EI AGEI I A	CONTRACTILE PROTEIN LEUCINE	RICH REPEAT, BETA-BETA-ALPHA	CYLINDER, DYNEIN, 2	CHLAMYDOMONAS, FLAGELLA		GRPE, MOLECULAR CHAPERONE,	NUCLEOTIDE EXCHANGE 2
Coumpound		INTERNALIN B; CHAIN: A;	RAB GERANYLGERANYLTRANSFE RASE ALPHA SUBUNIT; CHAIN: A, C; RAB GERANYLGERANYLTRANSFE RASE BETA SUBUNIT: CHAIN:	B.D.	RAB GERANYLGERANYLTRANSFE	RASE ALPHA SUBUNIT;	GERANYLGERANYLTRANSFE	RASE BETA SUBUNIT; CHAIN: B, D;	OUTER ARM DYNEIN; CHAIN:	Α,		OUTER ARM DYNEIN; CHAIN:	,	OTTER ARM DYNEIN: CHAIN:	A;				NUCLEOTIDE EXCHANGE FACTOR GRPE; CHAIN: A, B;	MOLECULAR CHAPERONE
SEQFOL D score																				
PMF		1.00	0.99		0.88				0.78			0.46		100	5				0.11	
Verify score		0.39	0.51		0.45				-0.40			-0.60		-030					-0.10	
Psi Blast		1.3e-32	3.2e-25		3.2e-17				3e-14			1.6e-28		370-13					0.0015	
END		235	249		207				161	,		251		170	<u>}</u>				398	
STAR T AA		92	132		84				111			125		73	:				250	
CHAI N ID		A	∢		¥				¥			¥		A	¢				٧	
PDB CI		140b	ldce		1dce				1ds9			1ds9		140) 				1dkg	
SEQ NO:		1806	1806		1806				1806			1806		1806	200				1809	

PDB annotation	FACTOR, COILED-COIL, COMPLEX (HSP24/HSP70)	ENDOCYTOSIS/EXOCYTOSIS NSECI; PROTEIN-PROTEIN COMPLEX, MULTI-SUBUNIT	CONTRACTILE PROTEIN TRIPLE- HELIX COILED COIL, CONTRACTILE PROTEIN			HYDROLASE TARTRATE- RESISTANT ACID PHOSPHATASE; METAL PHOSPHATASE, HYDROLASE	HYDROLASE TARTRATE- RESISTANT ACID PHOSPHATASE; METAL PHOSPHATASE, HYDROLASE	HYDROLASE UTEROFERRIN, TRAP, PAP, TARTRATE RESISTANT ACID PURPLE ACID PHOSPHATASE, TARTRATE RESISTANT ACID 2 PHOSPHATASE, METALLOENZYME, UTEROFERRIN, HYDROLASE	HYDROLASE (PHOSPHORIC MONOESTER) PURPLE ACID PHOSPHATASE, HYDROLASE (PHOSPHORIC MONOESTER)
Coumpound	DNAK; CHAIN: D;	SYNTAXIN BINDING PROTEIN 1; CHAIN: A; SYNTAXIN 1A; CHAIN: B;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	LIGASE(SYNTHETASE) SERYL- TRNA SYNTHETASE (E.C.6.1.1.11) (SERINE-TRNA LIGASE) 18ES 3 COMPLEXED	AMP 1SES 4	PURPLE ACID PHOSPHATASE; CHAIN: A;	PURPLE ACID PHOSPHATASE; CHAIN: A;	II PURPLE ACID PHOSPHATASE; CHAIN: A;	PURPLE ACID PHOSPHATASE; CHAIN: A, B, C, D;
SEQFOL D score						61.74		63.06	
PMF		-0.07	0.07	0.28			0.34		0.52
Verify score		90.0	-0.12	0.21			-0.19		0.01
Psi Blast		3e-08	7.5e-13	1.6e-05		4.5e-10	4.5e-10	0.00014	1.5e-12
END		367	374	528		310	239	320	247
STAR T AA		143	102	439		32	39	28	10
CHAI N ID		В	V	∢		Ą	Y	₹	Ą
PDB ID		1dn1	lquu	Ises		1qhw	1qhw	lute	4kbp
SEQ NO B		1809	1809	1812		1814	1814	1814	1814

	_			r									Ι					
PDB annotation		RNA-BINDING PROTEIN/RNA TRA PRE-MRNA; SPLICING	REGULATION, RNP DOMAIN, RNA COMPLEX	STRUCTURAL PROTEIN PROTEIN C23; RNP, RBD, RRM, RNA BINDING DOMAIN, NUCLEOLUS	METAL TRANSPORT MRP8, S100A8, CALGRANULIN A CALCIUM-	BINDING PROTEIN, CRYSTAL STRUCTURE, MAD, MIGRATION 2 INHIBITORY FACTOR_RELATED PROTEIN 8, S100 PROTEIN					NUCLEAR PROTEIN UI SNRNP A	PROTEIN; RNA BINDING DOMAIN, NUCLEAR PROTEIN	NUCLEAR PROTEIN UI SNRNP A	PROTEIN; RNA BINDING DOMAIN,	RNA BINDING DOMAIN RNA	BINDING DOMAIN, RBD, RNA	RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR.	TRANSLATIONAL INHIBITOR, SEX 3 DETERMINATION, X CHROMOSOME
Coumpound		SXL-LETHAL PROTEIN; CHAIN: A, B; RNA (5'-	R(P*GP*UP*UP*UP*UP*UP* UP*UP*UP*UP*U)- CHAIN: P, Q;	NUCLEOLIN RBD2; CHAIN: A;	MIGRATION INHIBITORY FACTOR-RELATED PROTEIN 8;	CHAIN: A, B;	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C-	TERMINUS, OR SECOND RNA- BINDING DOMAIN 18XL 3	(RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MED 1981	4 (NMR, 17 STRUCTURES) ISXL	UI SMALL NUCLEAR	RIBONUCLEOPROTEIN A; CHAIN: NULL;	UI SMALL NUCLEAR	RIBONUCLEOPROTEIN A;	SEX-LETHAL; CHAIN: A, B, C;			
SEQFOL D score																		,
PMF score		0.46		0.12	0.21		0.13				0.55		0.31		0.18			·
Verify score		-0.30		-0.15	0.07		-0.32				0.29		0.31		-0.10			
Psi Blast		3.2e-05		60-99.6	0.0045		3.2e-05				0.003		0.0093		6.4e-05			
END		272 ·		250	149		272				267		256		257			
STAR T AA		195		180	101		195				188		195		195			
CHAI N ID		Ą		A	Ą						,				⋖			
PDB ID		1b7f		1fjc	lmr8		lsxl				2ula		2ula		3sxl			
SEQ ID NO:		1815		1815	1815		1815				1815		1815		1815			

PDB annotation	DOSAGE COMPENSATION	HYDROLASE HOMODIMER, ALPHA/BETA HYDROLASE FOLD, DISTRIPTION THE 2 INHIBITOR	HYDROLASE HOMODIMER, ALPHA/BETA HYDROLASE FOLD, DISUBSTITUTED UREA 2 INHIBITOR	HYDROLASE HAD-FAMILY ALPHA/BETA CORE DOMAIN, MG(II) BINDING SITE, 5-2 HELIX BUNDLE	DEHALOGENASE DEHALOGENASE, HYDROLASE	ELECTRON TRANSPORT ELECTRON TRANSPORT, IRON-SULFUR	ELECTRON TRANSPORT ELECTRON TRANSPORT, IRON-SULFUR	ELECTRON TRANSFER (IRON- SULFUR PROTEIN)	ELECTRON TRANSPORT TWO 4FE- 4S CLUSTERS	HYDROGENASE HYDROGENASE, CYTOCHROME CS53, ELECTRON TRANSFER COMPLEX		HYDROGENASE HYDROGENASE, CYTOCHROME C553, ELECTRON TRANSFER COMPLEX
Coumpound		EPOXIDE HYDROLASE; CHAIN: A, B;	EPOXIDE HYDROLASE; CHAIN: A, B;	PHOSPHONOACETALDEHYDE HYDROLASE; CHAIN: A, B, C, D;	L-2-HALOACID DEHALOGENASE; CHAIN: NULL;	7-FE FERREDOXIN; CHAIN: NULL;	7-FE FERREDOXIN; CHAIN: NULL;	FERREDOXIN; ICLF 5 CHAIN: NULL ICLF 6	2[4FE-4S] FERREDOXIN; CHAIN: A	[FE]-HYDROGENASE (LARGE SUBUNIT); CHAIN: A; [FE]- HYDROGENASE (SMALL SUBUNIT); CHAIN: D;	CYTOCHROME C553; CHAIN: E	[FE]-HYDROGENASE (LARGE SUBUNIT); CHAIN: A; [FE]- HYDROGENASE (SMALL SUBUNIT); CHAIN: D; CYTOCHROME C553; CHAIN: E
SEQFOL D score		ı						3				
PMF score		-0.14	0.05	0.64	-0.19	-0.19	-0.17	-0.17	-0.12	1.00		1:00
Verify score		-0.00	-0.84	0.20	0.12	0.05	0.17	0.43	0.53	0.37		0.23
Psi Blast		3.2e-09	0.006	96-06	3e-10	8e-14	1.1e-10	1.1e-10	1.6e-11	6.4e-68		36-92
END		305	69	143	316	219	254	199	200	519		504
STAR T AA		172	39	38	28	137	176	137	137	136		173
CHAI N ID		¥	æ	¥					¥	4		Ą
PDB ID		leki	lek1	1 fez	lzm	1bc6	1bc6	1clf	1dur	1e08		1e08
SEQ NO:		1819	1819	6181	1819	1820	1820	1820	1820	1820		1820

PDB annotation	JENASE OXIDOREDUCTASE OXIDOREDUCTASE	BENASE OXIDOREDUCTASE OXIDOREDUCTASE	SE HYDROGENASE FE-ONLY CHAIN: HYDROGENASE, X-RAY BENASE CRYSTALLOGRAPHY, HYDROGENE FAIN: L, 2 METABOLISM, PERIPLASM	SE HYDROGENASE FE-ONLY CHAIN: HYDROGENASE, X-RAY SENASE CRYSTALLOGRAPHY, HYDROGENE AIN: L, 2 METABOLISM, PERIPLASM	SE HYDROGENASE FE-ONLY CHAIN: HYDROGENASE, X-RAY SENASE CRYSTALLOGRAPHY, HYDROGENE AIN: L, 2 METABOLISM, PERIPLASM	IN: A, STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	IN: A, STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	ISCLE CONTRACTILE PROTEIN TRIPLE. AIN: A; HELIX COILED COIL, CONTRACTILE PROTEIN	t
Coumpound	PERIPLASMIC HYDROGENASE 1; CHAIN: A;	PERIPLASMIC HYDROGENASE 1; CHAIN: A;	FE-ONLY HYDROGENASE (SMALLER SUBUNIT); CHAIN: S, T; FE-ONLY HYDROGENASE (LARGER SUBUNIT); CHAIN: L, M;	FE-ONLY HYDROGENASE (SMALLER SUBUNIT); CHAIN: S, T; FE-ONLY HYDROGENASE (LARGER SUBUNIT); CHAIN: L, M;	FE-ONLY HYDROGENASE (SMALLER SUBUNIT); CHAIN: S, T; FE-ONLY HYDROGENASE (LARGER SUBUNIT); CHAIN: L, M;	ALPHA SPECTRIN; CHAIN: A, B, C;	ALPHA SPECTRIN; CHAIN: A, B, C;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	HIMAN SKELETAL MISCIE
SEQFOL D score	232.77		223.69					52.84	
PMF		1.00		1.00	1.00	0.01	0.36		0.43
Verify score		0.33	!	0.40	0.61	-0.18	-0.09		-0.34
Psi Blast	1.4e-85	1.4e-85	4.5e-92	3.2e-68	4.5e-92	60-99	1.5e-07	9e-12	9e-12
END	574	572	524	519	504	344	207	302	340
STAR T AA	_	69	117	122	173	104	51	54	56
CHAI N ID	A	¥	크	1	r_	V	¥	∢	A
PDB ID	Ifeh	1feh	lhfe	1hfe	lhfe	Jeun	Icun	Iquu	louu
SEQ 10 NO:	1820	1820	1820	1820	1820	1821	1821	1821	1821

PDB annotation	HELIX COLLED COLL, CONTRACTILE PROTEIN	COMPLEX (BLOOD	AUTOPROTHROMBIN IIA:	HYDROLASE, SERINE	PROTEINASE), PLASMA CALCIUM	BINDING, 2 GLYCOPROTEIN,	COMPLEA (BECOLD) COAGULATION/INHIBITOR)	ANTI-COAGULANT ANTI-	COAGULANT, PEPTIDIC	INHIBITORS, CONFORMATIONAL 2	FLEXIBILITY, SERINE PROTEASE	INHIBITOR	HYDROLASE INHIBITOR ALL-BETA	INHIBITOR	HYDROLASE INHIBITOR ALL-BETA	STRUCTURE, HYDROLASE	INTIBILIOR	BLOOD COAGULATION, SEKINE	FRUIEASE, COMPLEX, CO-FACIOR,	2 RECEPTOR ENZYME, INHIBITOR,	GLA, EGF, 3 COMPLEX (SERINE	PROTEASE/COFACTOR/LIGAND)		APOPTOSIS TRAIL, DRS, COMPLEX				APOPTOSIS TRAIL, DRS, COMPLEX	
Coumpound	ALPHA-ACTININ 2; CHAIN: A;	ACTIVATED PROTEIN C;	CHAIN: P.					HIRUSTASIN; CHAIN: NULL;					BOWMAN-BIRK TRYPSIN	INTERPLEDE CHAIRS A	BOWMAN-BIRK TRYPSIN	INHIBITOR; CHAIN: A	3 10 10 100 100 110	BLOOD COAGULATION	FACIOR VIIA; CHAIN: L, H;	SOLUBLE TISSUE FACTOR;	CHAIN: T, U; D-PHE-PHE-ARG-	CHLOROMETHYLKETONE	(DFFRCMK) WITH CHAIN: C;	DEATH RECEPTOR 5; CHAIN:	A, B, C, G, H, I; TNF-RELATED	APOPTOSIS INDUCING	LIGAND; CHAIN: D, E, F, J, K, L;	DEATH RECEPTOR 5; CHAIN:	A R C G H I. TAIR. REI A TED
SEQFOL D score		51.57																											
PMF								-0.15					-0.03		-0.15		Ş	ا-ن ر						-0.18				-0.12	
Verify								1.12					0.53		0.87		į	0.56						1.08				0.59	
Psi Blast		80-96						6e-11					1.4e-26		1.5e-19		,	7.5e-13						7.5e-11				4.5e-12	
END		125						113					165		126			55						77				125	
STAR TAA		29						45					36		4		,	7						7				31	
CHAI		1		•									4		A			٦.			_		_	٧				٧	
PDB ID		laut						1bx7					1c2a		1c2a			ugpr						1du3				1du3	_
SEQ FO		1822						1822					1822		1822		,	7781			_			1822				1822	_

PDB annotation		APOPTOSIS TRAIL, DR5, COMPLEX	SERINE PROTEINASE COAGULATION FACTOR II; COAGULATION FACTOR II; FETOMODULIN, TM, CD141	ANTIGEN; EGR-CMK SERINE PROTEINASE, EGF-LIKE DOMAINS, ANTICOAGULANT COMPLEX, 2 ANTIFIBRINOLYTIC COMPLEX	PLANT PROTEIN TWO HOMOLOGOUS HEVEIN-LIKE DOMAINS	PLANT PROTEIN TWO HOMOLOGOUS HEVEIN-LIKE DOMAINS	PLANT PROTEIN TWO HOMOLOGOUS HEVEIN-LIKE DOMAINS	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA,
Coumpound	APOPTOSIS INDUCING LIGAND; CHAIN: D, E, F, J, K, L;	DEATH RECEPTOR 5; CHAIN: A, B, C, G, H, I; TNF-RELATED APOPTOSIS INDUCING LIGAND; CHAIN: D, E, F, J, K, L;	THROMBIN LIGHT CHAIN; CHAIN: A, B, C, D; THROMBIN HEAVY CHAIN; CHAIN: M, N, O, P; THROMBOMODULIN;	CHAIN: 1, 1, K, L; THROMBIN INHIBITOR L-GLU-L-GLY-L- ARM; CHAIN: E, F, G, H;	AGGLUTININ ISOLECTIN VI; CHAIN: A	AGGLUTININ ISOLECTIN VI; CHAIN: A	AGGLUTININ ISOLECTIN VI; CHAIN: A	AGGLUTININ ISOLECTIN VI/AGGLUTININ ISOLECTIN V; CHAIN: A;	AGGLUTININ ISOLECTIN VVAGGLUTININ ISOLECTIN V; CHAIN: A;	AGGLUTININ ISOLECTIN VVAGGLUTININ ISOLECTIN V; CHAIN: A;	AGGLUTININ ISOLECTIN VINAGGLUTININ ISOLECTIN V;
SEQFOL D score											
PMF score		-0.15	-0.14		-0.18	-0.12	0.16	0.17	-0.11	0.10	-0.17
Verify score		1.17	0.58		0.49	11:1	1.00	0.87	1.02	1.08	0.24
Psi Blast		6e-12	4.5e-11		1.4e-18	7.5e-19	1.4e-18	1.5e-19	1.2e-19	1.5e-19	7.5e-17
END		96	155		111	16	141	121	06	141	160
STAR T AA		6	47		12	4	52	61	4	52	75
CHAI N ID		٧	П		4	4	4	4	Ą	Α	∢
PDB ID		Idu3	1dx5		1ehd	1ehd	lehd	leis	leis	leis	1eis
SEQ ID		1822	1822		1822	1822	1822	1822	1822	1822	1822

	1					g	5	g					
PDB annotation	SUPERANTIGEN	SUGAR BINDING PROTEIN UDA, LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN, SACCHARIDE BINDING	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN, SACCHARIDE BINDING	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN, SACCHARIDE BINDING	SUGAR BINDING PROTEIN UDA; LECTIN, HEVEIN DOMAIN, UDA, SUPERANTIGEN, SACCHARIDE BINDING	SIGNALLING PROTEIN BINDING PROTEIN, CYTOKINE, SIGNALLING PROTEIN	SIGNALLING PROTEIN BINDING PROTEIN, CYTOKINE, SIGNALLING PROTEIN	SIGNALLING PROTEIN BINDING PROTEIN, CYTOKINE, SIGNALLING PROTEIN	HORMONE RECEPTOR HORMONE RECEPTOR, INSULIN RECEPTOR FAMILY	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	SIGNALLING PROTEIN TYPE I RECEPTOR, STNFRI; INCF 8
Commpound	CHAIN: A;	AGGLUTININ ISOLECTIN VAGGLUTININ ISOLECTIN V/ CHAIN: A;	AGGLUTININ ISOLECTIN I/AGGLUTININ ISOLECTIN V/ CHAIN: A;	AGGLUTININ ISOLECTIN I/AGGLUTININ ISOLECTIN V/ CHAIN: A;	AGGLUTININ ISOLECTIN VAGGLUTININ ISOLECTIN V/ CHAIN: A;	TUMOR NECROSIS FACTOR RECEPTOR; CHAIN: A, B;	TUMOR NECROSIS FACTOR RECEPTOR; CHAIN: A, B;	TUMOR NECROSIS FACTOR RECEPTOR; CHAIN: A, B;	INSULIN-LIKE GROWTH FACTOR RECEPTOR 1; CHAIN: A;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	LAMININ; CHAIN: NULL;	TUMOR NECROSIS FACTOR RECEPTOR; INCF 4 CHAIN: A,
SEQFOL D score						62.34						82.39	50.41
PMF score		-0.13	-0.18	0.11	-0.14		-0.14	-0.14	-0.19	-0.15	-0.06		
Verify score		0.40	1.10	1.04	0.61		0.78	0.63	0.40	0.65	1.13		
Psi Blast		3e-18	6e-16	3e-21	6e-18	7.5e-20	7.5e-20	6e-13	1.5e-28	1.2e-19	7.5e-27	7.5e-27	1.5e-12
END		121	06	141	160	177	175	128	178	178	155	157	171
STAR T AA		12	2	52	29	10	12	3	4	47	4	4	34
CHAI N ID		4	Ą	Ą	Ą	4	4	¥	۷				∢
PDB CI		len2	len2	len2	len2	lext	lext	lext	ligr	1klo	1klo	1klo	Incf
SEQ TD	2	1822	1822	1822	1822	1822	1822	1822	1822	1822	1822	1822	1822

PDB annotation	BINDING PROTEIN, CYTOKINE 1NCF 19	SIGNALLING PROTEIN TYPE I RECEPTOR, STNFRI; INCF 8 BINDING PROTEIN, CYTOKINE INCF 19	EXTRACELLULAR MODULE OSTEONECTIN, SPARC, SECRETED PROTEIN ACIDIC AND EXTRACELLULAR MODULE, GLYCOPROTEIN, ANTI-ADHESIVE PROTEIN, 2 COLLAGEN BINDING, SITE-DIRECTED MUTAGENESIS, GLYCOSYLATED 3 PROTEIN MODRES	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX,
Coumpound	B; INCF 5	TUMOR NECROSIS FACTOR RECEPTOR; INCF 4 CHAIN: A, B; INCF 5	BASEMENT MEMBRANE PROTEIN BM-40; CHAIN: A, B;	FACTOR IXA; CHAIN: C, L.; D- PHE-PRO-ARG; CHAIN: I;	FACTOR IXA; CHAIN: C, L.; D- PHE-PRO-ARG; CHAIN: I;	FACTOR IXA; CHAIN: C, L,; D. PHE-PRO-ARG; CHAIN: I;
SEQFOL D score					55.26	
PMF score		-0.14	-0.19	-0.20		-0.20
Verify score		0.68	0.10	0.14		0,44
Psi Blast		1.5e-12	66-26	36-23	36-23	9e-14
END		155	171	179	178	123
STAR T AA		35	12	19	36	3
CHAI N ID		¥	∢	1	1	1
PDB ID		lncf	Inub	1pfx	1pfx	1рfх
SEQ ID NO:		1822	1822	1822	1822	1822

PDB annotation	INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, PACTOR XA INHIBITOR, 2 SERINE PROTEASE INHIBITOR, THROMBOSIS	SERINE PROTEASE INHIBITOR FACTOR XA INHIBITOR; ANTISTASIN, CRYSTAL STRUCTURE, FACTOR XA INHIBITOR, 2 SERINE PROTEASE		
Coumpound		ANTISTASIN; CHAIN: NULL; D score					63.90	
PMF		0.54	-0.06	0.11		-0.12		
Verify score		0.63	0.57	0.03		0.61		
Psi Blast		1.2e-18	7.5e-21	7.5e-25	7.5e-25	1.5e-18		
END		134	147	9/1	180	117		
STAR T AA		22	43	71	71	∞		
CHAI N ID								
PDB ID		1skz	Iskz	Iskz	Iskz	1skz		
SEQ NO.		1822	1822	1822	1822	1822		

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PDB annotation	INHIBITOR, THROMBOSIS				ANTI-COAGULANT ANTI- COAGULANT, PEPTIDIC INHIBITORS, CONFORMATIONAL 2 FLEXIBILITY, SERINE PROTEASE INHIBITOR	APOPTOSIS TRAIL, DR5, COMPLEX												BLOOD COAGULATION FACTOR	SIUAKI FACIOK; BLOOD	PROTEINASE EPIDERMAI 2	GROWTH FACTOR LIKE DOMAIN
Coumpound		LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3		HIRUSTASIN; CHAIN: NULL;	DEATH RECEPTOR 5; CHAIN:	A, B, C, G, H, I; TNF-RELATED APOPTOSIS INDUCING	LIGAND; CHAIN: D, E, F, J, K, L;	METALLOTHIONEIN CD-7	METALLOTHIONEIN-2 (ALPHA DOMAIN) (/NMR\$) 1MHUA 2	METALLOTHIONEIN CD-7	METALLOTHIONEIN-2 (ALPHA DOMAIN) (NMRS) IMHUA 2	METALLOTHIONEIN CD-7	METALLOTHIONEIN-2 (ALPHA	DOMAIN) (/NMK\$) IMKIA 2	METALLOTHIONEIN CD-7 METALLOTHIONEIN-2/ALPHA	DOMAIN) (/NMR\$) 1MRTA 2	BLOOD COAGULATION	FACTOR XA; CHAIN: L, C;		
SEQFOL D score		107.39									65.07					63.47					
PMF			0.03		0.07	-0.12			1.00				1.00					0.10			
Verify score			0.57		0.23	0.07			0.40				0.49					0.34			!
Psi Blast		6e-30	3e-26		4.5e-20	3e-08			9e-16		9e-16		9e-16			9e-16		7.5e-06			
END AA		158	160		107	107			108		108		108			108		106			
STAR		2	2		50	49			78		78		78			78		54			
CHAI N ID		A	4			4												7			
PDB ID		9wga	9wga		1bx7	1du3			1mhu		1mhu		Imi			lmrt		1xka			
SEQ ID NO:		1822	1822		1824	1824			1824		1824		1824			1824		1824			

PDB annotation				CALCIUM-BINDING PROTEIN CALB; CALCIUM++/PHOSPHOLIPID BINDING PROTEIN, 2 CALCIUM- BINDING PROTEIN	CALCIUM-BINDING PROTEIN CALB;	BINDING PROTEIN, 2 CALCIUM-BINDING PROTEIN	TRANSCRIPTION REGULATION	PROTO-ONCOGENE, NUCLEAR	BODIES (PODS), LEUKEMIA, 2 TRANSCRIPTION REGILI ATION	FNDOCYTOSIS/FXOCYTOSIS	SYNAPTOTAGMIN, C2-DOMAIN,	EXOCYTOSIS,	NEUROTRANSMITTER 2 RELEASE,	ENDOCY IOSIS/EXOCY IOSIS	ENDOCYTOSIS/EXOCYTOSIS	SYNAPIOIAGMIN, CZ-DOMAIN, EXOCYTORIS	LACOLI LOSIS,	NEUROTRANSMITTER 2 RELEASE, ENDOCYTOSIS	HYDROLASE CPLA2;	PHOSPHOLIPASE, LIPID-BINDING,	HYDROI ACE CRI A 2.	HIDROLASE CFLAZ; PHOSPHOLIPASE, LIPID-BINDING,
Coumpound	METALLOTHIONEIN METALLOTHIONEIN ISOFORM II 4MT2 3	METALLOTHIONEIN METALLOTHIONEIN ISOFORM II 4MT2 3		PROTEIN KINASE C (BETA); CHAIN: A, B;	PROTEIN KINASE C (BETA);	(1, t, t, t)	TRANSCRIPTION FACTOR	PML; CHAIN: NULL;		SYNAPTOTAGMIN I: CHAIN: 4.	Cinal Cinal 1, Cinal A,			1 THIS LIMITOR TO THE TAKE	SYNAPIOIAGMIN I; CHAIN: A;				CYTOSOLIC PHOSPHOLIPASE	A2; CHAIN: A, B;	SA A OI TO BHO SB I TO SOLLO	A2; CHAIN: A, B;
SEQFOL D score		127.57							•												- - 	
PMF score	0.15		•	1.00	0.90		0.13			8	2			90	0.98				0.01		0.28	0.20
Verify	-0.09			0.47	0.27		0.33			0.68	8			0 40	0.70				0.17		0.37	75.0
Psi Blast	1.3e-14	1.3e-14		4.8e-42	3.2e-37	-	0.00075			3.26-46	2			1 12 22	1.46-27				1.le-12		1 20-15	
END	108	108	1	491	646		109			484				007	659				480		630	53
STAR T AA	48	48		355	528		09			355	3			013	010				998		405	750
CHAI N ID				∢	٧					4	:				∢				A		A	
PDB ID	4mt2	4mt2		1a25	1825		1bor			1bvn	 : :			1.5	nço1				1cjy		Viol	(5.
SEQ S D S	1824	1824		1825	1825		1825			1825				1015	C281				1825		1825	

PDB annotation	HYDROLASE	LIPID DEGRADATION PLC-DI; PHOSPHORIC DIESTER	HIDROLASE, HIDROLASE, LIFID DEGRADATION, 2 TRANSDUCER,	CALCIUM-BINDING, PHOSPHOLIPASE C.3	PHOSPHOINOSITIDE-SPECIFIC	LIPID DEGRADATION PLC-D1; PHOSPHORIC DIESTER	HYDROLASE, HYDROLASE, LIPID	DEGRADATION, 2 TRANSDUCER,	PHOSPHOLIPASE C, 3	PHOSPHOINOSITIDE-SPECIFIC	LIPID DEGRADATION PLC-D1; PHOSPHORIC DIESTER	HYDROLASE, HYDROLASE, LIPID	DEGRADATION, 2 TRANSDUCER,	CALCIUM-BINDING,	PHOSPHOLIPASE C, 3	PHOSPHOINOSITIDE-SPECIFIC	ENDOCYTOSIS/EXOCYTOSIS BETA	SANDWICH, CALCIUM ION, C2	EXIDOCATORIS (EXOCATORIS BETA	ENDOCT 10313/EAUCT 10313 BELA	SANDWICH, CALCIUM ION, C2 DOMAIN	TRANSFERASE CALCIUM++,	PHOSPHOLIPID BINDING PROTEIN,	CALCIUM-BINDING 2 PROTEIN,	PHOSPHATIDYL SERINE, PROTEIN	TEANGEED ASE CALCHINAL	IKANSFEKASE CALCIUM++,
Coumpound		PHOSPHOINOSITIDE-SPECIFIC PHOSPHOLIPASE C, CHAIN: A,	á ·			PHOSPHOINOSITIDE-SPECIFIC PHOSPHOLIPASE C, CHAIN: A,					PHOSPHOINOSITIDE-SPECIFIC PHOSPHOLIPASE C. CHAIN: A.	ď					SYNAPTOTAGMIN III; CHAIN:	A;	SYNTABETOE ACKANA ME. CHARA.	STINAFIOI AGMIN III; CHAIN:	, A;	PROTEIN KINASE C, ALPHA	TYPE; CHAIN: A;			DROTTED! WRIASH C AI DITA	FRUIEIN KINASE C, ALPHA
SEQFOL D score																											
PMF score		0.62				0.12					0.58						1.00		27.0	0.40 0		96.0				1,0	0.3 t
Verify score		0.19				-0.07					0.16						0.47		**	0.24		0.33				0.20	0.38
Psi Blast		4.5e-15				6e-13		_			4.5e-15						3.2e-88		400 22	4.00-23		1.3e-45				2 40 40	0.46-40
END AA		467				620					467				,	-	649		127	1/0		494				650	0.00
STAR T AA		370				526					370						357		512	717		354				510	210
CHAI N ID		Ą				¥					Ø						A			τ,		A				<	٧
PDB ID		1djx				1djx					1djx						4p1		1967	A hor		Idsy				1 day	Idsy
SEQ NO:		1825				1825					1825						1825		1875	701		1825				1025	1023

PDB annotation	PHOSPHOLIPID BINDING PROTEIN, CALCIUM-BINDING 2 PROTEIN, PHOSPHATIDYLSERINE, PROTEIN KINASE C	METAL BINDING PROTEIN RING FINGER PROTEIN MATI; RING FINGER (C3HC4)	HYDROLASE CALB DOMAIN; HYDROLASE, C2 DOMAIN, CALB DOMAIN	HYDROLASE CALB DOMAIN; HYDROLASE, C2 DOMAIN, CALB DOMAIN	DNA-BINDING PROTEIN V(D)J RECOMBINATION ACTIVATING PROTEIN 1; RAG1, V(D)J RECOMBINATION, ANTIBODY, MAD, RING FINGER, 2 ZINC BINUCLEAR CLUSTER, ZINC	FINGER, DNA-BINDING FROTEIN			TRANSPORT PROTEIN FYVE DOMAIN, ENDOSOME
Coumpound	TYPE; CHAIN: A;	CDK-ACTIVATING KINASE ASSEMBLY FACTOR MAT1; CHAIN: A;	PHOSPHOLIPASE A2; CHAIN: NULL;	PHOSPHOLIPASE A2; CHAIN: NULL;	RAG1; CHAIN: NULL;	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST CZ DOMAIN) (CALB) IRSY 3	CALCIUM/PHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) IRSY 3	CALCIUMPHOSPHOLIPID BINDING PROTEIN SYNAPTOTAGMIN I (FIRST C2 DOMAIN) (CALB) 1RSY 3	PHOSPHATIDYLINOSITOL-3- PHOSPHATE BINDING FYVE
SEQFOL D score						81.61			
PMF score		0.10	0.41	0.23	0.03		00.1	96'0	0.16
Verify score		0.10	-0.18	0.31	0.21		0.81	0.48	0.04
Psi Blast		0.00045	1.5e-16	7.5e-17	0.003	4.8e-46	4.8e-46	1.6e-27	0.00075
END AA		109	480	631	109	483	482	636	91
STAR T AA		99	373	528	9	347	355	510	છ
CHAI N ID		Y			•				A
PDB ID		1g25	lrlw	Irlw	1rmd	Irsy	lrsy	lrsy	lvfy
SEQ ID NO:		1825	1825	1825	1825	1825	1825	1825	1825

PDB annotation	MATURATION, INTRACELLULAR TRAFFICKING, 2 TRANSPORT PROTEIN	B; BINDING/EFFECTOR) RAS-RELATED PROTEIN RAB34; COMPLEX (GTP-BINDING/EFFECTOR), G PROTEIN, EFFECTOR, RABCDR, 2 SYNAPTIC EXOCYTOSIS, RAB PROTEIN, RAB54, RABPHILIN			A; ENDOCYTOSIS/EXOCYTOSIS C2-DOMAINS, C2B-DOMAIN, RABPHILIN, ENDOCYTOSIS/EXOCYTOSIS	(YEIN)	A; CALMODULIN, CALCIUM BINDING, HELIX-LOOP-HELIX, SIGNALLING, 2 COMPLEX(CALCIUM-BINDING PROTEIN/PEPTIDE)
Coumpound	CHAIN: A;	RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B;	RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B;	RABPHILIN 3-A; CHAIN: A;	RABPHILIN 3-A; CHAIN: A;	CALCIUM-BINDING PROTEIN CALMODULIN (VERTEBRATE) ICLL 3	CALMODULIN; CHAIN: A; RS20; CHAIN: B;
SEQFOL D score			71.27			69.53	72.01
PMF score		69:0		1.00	0.58		
Verify score		0.40		0.62	0.53		
Psi Blast		3e-22	3e-22	3.2e-29	1.4e-46	4.8e-53	1.1e-60
END		120	131	496	649	169	170
STAR T AA		01	∞	357	512	53	56
CHAI N ID		В	В	Ą	Ą		4
PDB ID		1zbd	1zbd	Згрь	3rpb	Icll	lvrk
SEQ SO SO SO SO SO SO SO SO SO SO SO SO SO		1825	1825	1825	1825	1828	1828

	γ	¥	R,	O.R. R.	
PDB annotation	COMPLEX (BLOOD COAGULATIONINHIBITOR) AUTOPROTHROMBIN IIA; HYDROLASE, SERINE PROTEINASE), PLASMA CALCIUM BINDING, 2 GLYCOPROTEIN, COMPLEX (BLOOD COAGULATIONINHIBITOR)	COMPLEX (BLOOD COAGULATION/INHIBITOR) AUTOPROTHROMBIN IIA; HYDROLASE, SERINE PROTEINASE), PLASMA CALCIUM BINDING, 2 GLYCOPROTEIN, COMPLEX (BLOOD COAGULATION/INHIBITOR)	BLOOD COAGULATION, SERINE PROTEASE, COMPLEX, CO-FACTOR, 2 RECEPTOR ENZYME, INHIBITOR, GLA, EGF, 3 COMPLEX (SERINE PROTEASE/COFACTOR/LIGAND)	BLOOD COAGULATION, SERINE PROTEASE, COMPLEX, CO-FACTOR, 2 RECEPTOR ENZYME, INHIBITOR, GLA, EGF, 3 COMPLEX (SERINE PROTEASE/COFACTOR/LIGAND)	HYDROLASE/HYDROLASE INHIBITOR PROTEIN-PEPTIDE COMPLEX
	COA HYL PRO BINI COA	COA HYT PRO BINI COA	PRO PRO 2 RE GLA PRO	BLO PRO 2 RE GLA PRO	CON
Coumpound	ACTIVATED PROTEIN C; CHAIN: C, L; D-PHE-PRO-MAI; CHAIN: P;	ACTIVATED PROTEIN C; CHAIN: C, L; D-PHE-PRO-MAI; CHAIN: P;	BLOOD COAGULATION FACTOR VIIA; CHAIN: I, H; SOLUBLE TISSUE FACTOR; CHAIN: T, U; D-PHE-PHE-ARG- CHLOROMETHYLKETONE (DFFRCMK) WITH CHAIN: C;	BLOOD COAGULATION FACTOR VILA; CHAIN: L, H; SOLUBLE TISSUE FACTOR; CHAIN: T, U; D-PHE-PHE-ARG- CHLOROMETHYLKETONE (DFFRCMK) WITH CHAIN: C;	DES-GLA FACTOR VIIA (HEAVY CHAIN); CHAIN: H, I; DES-GLA FACTOR VIIA (LIGHT CHAIN); CHAIN: L, M; (DPN)- PHE-ARG; CHAIN: C, D; PEPTIDE E-76; CHAIN: X, Y;
SEQFOL D score	58.73			60.57	:
PMF		-0.17	96.0	_ :	66.0
Verify score		0.14	0.10		0.26
Psi Blast	1.3e-20	1.3e-20	6.4e-16	1.5e-22	6.4e-16
END	145	202	231	193	231
STAR T AA	47	73	152	54	152
CHAI N ID		⊢ ì	٦	٦.	1
aga ID	laut	laut	Idan	1dan	ldva
SEQ ID NO:	1833	1833	1833	1833	1833

PDB annotation	MATRIX PROTEIN EXTRACELLULAR MATRIX, CALCIUM-BINDING, GLYCOPROTEIN, 2 REPEAT, SIGNAL, MULTIGENE FAMILY, DISEASE MUTATION, 3 EGF-LIKE DOMAIN, HUMAN FIBRILLIN-1 FRAGMENT, MATRIX PROTEIN	SIGNALLING PROTEIN BINDING PROTEIN, CYTOKINE, SIGNALLING PROTEIN	BLOOD CLOTTING COMPLEX(SERINE PROTEASE/COFACTOR/LIGAND), BLOOD COAGULATION, 2 SERINE	PROTEASE, COMPLEX, CO-FACTOR, RECEPTOR ENZYME, 3 INHIBITOR, GLA, EGF, COMPLEX (SERINE 4 PROTEASE/COFACTOR/LIGAND), BLOOD CLOTTING	GLYCOPROTEIN GLYCOPROTEIN	GLYCOPROTEIN GLYCOPROTEIN	COMPLEX (BLOOD	CHRISTMAS FACTOR; COMPLEX, INHIBITOR HEMOPHII IA/FGF	BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM-	BINDING, HYDROLASE, 3 GLYCOPROTEIN	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX,
Coumpound	FIBRILLIN; CHAIN: NULL;	TUMOR NECROSIS FACTOR RECEPTOR; CHAIN: A, B;	BLOOD COAGULATION FACTOR VIIA; CHAIN: L; BLOOD COAGULATION FACTOR VIIA; CHAIN: H;	SOLUBLE TISSUE FACTOR; CHAIN: T; 5L15; CHAIN: I;	LAMININ; CHAIN; NULL;	LAMININ; CHAIN: NULL;	FACTOR IXA; CHAIN: C, L.; D-	riberno-ring, Circus. 1,			FACTOR IXA; CHAIN: C, L.; D- PHE-PRO-ARG; CHAIN: I;
SEQFOL D score	56.72	54.06				20.07	64.61				
PMF score			1.00		0.43	-0.01				,	-0.12
Verify score			0.44		0.32	0.12					0.10
Psi Blast	1.3e-15	9e-14	6.4e-16		le-28	1.1e-20	6e-35				6e-35
END	226	173	231		205	242	146				218
STAR T AA	149	10	152		43	55	22				54
CHAI N ID		A	7				ľ				1
PDB UD	lemn	lext	1fak		1klo	1klo	 				1pfx
SEQ ID NO:	1833	1833	1833		1833	1833	1833				1833

					,	
PDB annotation	INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	COMPLEX (BLOOD COAGULATION/INHIBITOR) CHRISTMAS FACTOR; COMPLEX, INHIBITOR, HEMOPHILIA/EGF, BLOOD COAGULATION, 2 PLASMA, SERINE PROTEASE, CALCIUM- BINDING, HYDROLASE, 3 GLYCOPROTEIN	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE	SERINE PROTEASE FVIIA; FVIIA; BLOOD COAGULATION, SERINE PROTEASE
Coumpound		FACTOR IXA; CHAIN: C, L.; D- PHE-PRO-ARG; CHAIN: I;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	COAGULATION FACTOR VIIA (LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA
SEQFOL D score					55.94	
PMF score		0.07	0.62	0.98		0.18
Verify		-0.16	0.07	0.30		0.04
Psi Blast		6e-29	1.5e-21	6.4e-15	7.5e-24	7.5e-24
END		226	226	231	195	207
STAR T AA		75	156	156	16	92
CHAI N ID		T	ı	1	L	7
PDB ID		1pfx	1qfk	1qfk	Iqfk	1qfk
SEQ ID NO:		1833	1833	1833	1833	1833

PDB annotation		PLASMINOGEN ACTIVATION	PLASMINOGEN ACTIVATION	PLASMINOGEN ACTIVATION	LIPID DEGRADATION PHOSPHOLIPASE A2, LIPID DEGRADATION, HYDROLASE	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	
Coumpound	(HEAVY CHAIN), CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	T-PLASMINOGEN ACTIVATOR F1-G; 1TPG 7 CHAIN: NULL; 1TPG 8	T-PLASMINOGEN ACTIVATOR FI-G; ITPG 7 CHAIN: NULL; ITPG 8	T-PLASMINOGEN ACTIVATOR F1-G; 1TPG 7 CHAIN: NULL; 1TPG 8	PHOSPHOLIPASE A2; CHAIN: A, B;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3
SEQFOL D score							59.27		78.80
PMF score		0.63	0.19	0.16	-0.12	0.64		90:0	
Verify score		-0.02	0.27	0.23	0.03	0.18		0.32	
Psi Blast		le-23	le-23	3e-21	4.5e-18	3e-18	1.1e-21	1.1e-21	7.5e-25
END		226	125	196	130	226	208	207	207
STAR T AA		137	43	72	34	156	16	92	28
CHAI N ID					A	T	7	J	А
PDB ID		ltpg	ltpg	ltpg	lvap	lxka	lxka	lxka	9wga
SEQ NO.		1833	1833	1833	1833	1833	1833	1833	1833

PDB annotation	SIGNALING PROTEIN PHOTORECEPTOR, G PROTEIN- COUPLED RECEPTOR, MEMBRANE PROTEIN, 2 RETINAL PROTEIN, VISUAL PIGMENT	SIGNALING PROTEIN PHOTORECEPTOR, G PROTEIN- COUPLED RECEPTOR, MEMBRANE PROTEIN, 2 RETINAL PROTEIN, VISUAL PIGMENT	RNA-BINDING PROTEIN/RNA TRA PRE-MRN4; SPLICING REGULATION, RNP DOMAIN, RNA COMPLEX	TRANSFERASE TYPE II DNA- (CYTOSINE N4) METHYLTRANSFERASE, AMINO 2 METHYLATION, SELENOMETHIONINE, MULTIWAVELENGTH ANOMALOUS 3 DIFFRACTION	GENE REGULATION/RNA POLY(A) BINDING PROTEIN I, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA
Соитропид	RHODOPSIN; CHAIN: A, B	RHODOPSIN; CHAIN: A, B	SXL-LETHAL PROTEIN; CHAIN; A, B; RNA (5'- R(P*UP*UP*UP*UP*UP*)- UP*UP*UP*UP-UP-UP. CHAIN: P, Q;	N-4 CYTOSINE-SPECIFIC METHYLTRANSFERASE PVU II; CHAIN: A;	POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A):3); CHAIN: M, N, O, P, Q, R, S, T;
SEQFOL D score						
PMF	-0.07	0.10	0.36	0.27	0.24	-0.19
Verify score	0.11	-0.14	-0.03	-0.57	-0.34	0.05
Psi Blast	36-20	7.5e-18	1.6e-19	4.5e-05	6.4e-23	3.2e-26
END	320	299	144	480	150	23.7
STAR T AA	4	4	19	433	59	75
CHAI N ID	Ą	Ø	₹	¥	¥	Ø
PDB ID	1188	1f88	1b7f	1500	Icvj	1cvj
SEQ NO.	1834	1834	1835	1835	1835	1835

CHAI	r .	STAR	END	Psi Blast	Verify	PMF score	SEQFOL D score	Coumpound	PDB annotation
	424		492	1.2e-14	-0.57	0.17		GLYCINE N. METHYLTRANSFERASE; CHAIN: A. B. C. D:	TRANSFERASE METHYLTRANSFERASE
A 72	2		144	3.2e-17	-0.02	91'0		HU ANTIGEN C; CHAIN: A;	RNA BINDING PROTEIN RNA- BINDING DOMAIN
A 421	4		267	9.6e-20	0.37	0.75		MJ0882; CHAIN: A;	STRUCTURAL GENOMICS HYPOTHETICAL PROTEIN, METHANOCOCCUS JANNASCHII
A 73	7.	8	139	1.3e-13	0.19	0.62		NUCLEOLIN RBD2; CHAIN: A;	STRUCTURAL PROTEIN PROTEIN C23; RNP, RBD, RRM, RNA BINDING DOMAIN, NUCLEOLUS
4	4	402	280	3.2e-11	-0.51	0.03		HNRNP ARGININE N- METHYLTRANSFERASE; CHAIN: 1, 2, 3, 4, 5, 6;	TRANSFERASE SAM-BINDING DOMAIN, BETA-BARREL, MIXED ALPHA-BETA, HEXAMER, 2 DIMER
-	4	420	492	1.3e-13	0.20	0.83		HNRNP ARGININE N- METHYLTRANSFERASE; CHAIN: 1, 2, 3, 4, 5, 6;	TRANSFERASE SAM-BINDING DOMAIN, BETA-BARREL, MIXED ALPHA-BETA, HEXAMER, 2 DIMER
A		74	144	3.2e-23	0.27	90.0		HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN DO; CHAIN: A;	RNA BINDING PROTEIN RNA- BINDING DOMAIN
Y .	-	410	265	6e-21	-0.06	0.58		ERMC' METHYLTRANSFERASE; CHAIN: A:	TRANSFERASE RRNA METHYLTRANSFERASE ERMC', COFACTOR ANALOGS
A	<u> </u>	413	524	6.4e-05	-0.12	0.05		ERMC' METHYLTRANSFERASE; CHAIN: A;	TRANSFERASE RRNA METHYL TRANSFERASE ERMC', COFACTOR ANALOGS
	·	424	538	1.5e-15	0.23	0.66		CATECHOL O- METHYLTRANSFERASE; CHAIN: NULL;	TRANSFERASE (METHYLTRANSFERASE) COMT; TRANSFERASE, METHYLTRANSFERASE, NEUROTRANSMITTER DEGRADATION
4		426	492	1.5e-10	-0.47	0.05		GLYCINE N. METHYLTRANSFERASE;	METHYLTRANSFERASE GNMT, S-ADENOSYL-L-METHIONINE):

	1SE		TVE	SEX 3		AIN;					E TOR.
ation	GLYCINE METHYLTRANSFERASE	IN RNA-	RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3 DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION		GENE REGULATION POZ DOMAIN; PROTEIN-PROTEIN INTERACTION DOMAIN, TRANSCRIPTIONAL 2 REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION					BLOOD COAGULATION, SERINE PROTEASE, COMPLEX, CO-FACT
PDB annotation	THYLTE	G PROTE	G DOMA MAIN, A	G DOMA MAIN, R N MOTII HIBITOR DNAL INI TION, X MPENSA		LATIONI OTEIN IN ANSCRII ZINC-FII RAY GRAPHY PROMY					GULATIC COMPLEX
<u>a</u>	YCINE MI	RNA BINDING PROTEIN RNA. BINDING DOMAIN	RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNA SPLICING	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, DETERMINATION, X CHROMC DOSAGE COMPENSATION		GENE REGULATION POZ D PROTEIN-PROTEIN INTERA DOMAIN, TRANSCRIPTION REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PR STRUCTURE, PROMYELOC LEUKEMIA, GENE REGULA					BLOOD COAGULATION, SERINE PROTEASE, COMPLEX, CO-FACTOR,
ļ	<u>a</u>	2 E	 	NA BEEN BEEN BEEN BEEN BEEN BEEN BEEN BE	L	PRG PRG STR STR STR STR STR STR STR STR STR STR				_	BL(PR(
		 	SEX-LETHAL PROTEIN; CHAIN: NULL;	SEX-LETHAL; CHAIN: A, B, C;	,	PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3		Ν. L, H;
Coumpound		MUSASHII; CHAIN: A;	PROTEI	CHAIN		PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;	OXIDOREDUCTASE(OXYGA)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3	OXIDOREDUCTASE(OXYGA)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3	OXIDOREDUCTASE(OXYG A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3		BLOOD COAGULATION FACTOR VIIA; CHAIN: L, H;
Con	CHAIN: A, B;	SHII; C	ETHAL	ETHAL		IYELOC FINGER N: A;	OREDU(ALACTC .1.3.9) (P	OREDU(ALACTO .1.3.9) (P	OREDU(ALACTC 1.3.9) (P		D COAC
	CHAI	MUSA	SEX-LE NULL;	SEX-I		PROMYEL ZINC FINC CHAIN: A;	OXID A)) G/ (E.C.1	OXID A)) G/ (E.C.1	OXID A)) G/ (E.C.1		BLOO
SEQFOL D score											
PMF score		0.00	0.35	-0.05		-0.05	0.34	0.13	0.07		-0.20
Verify score		-0.04	0.04	0.10		0.37	-0.33	-0.42	-0.23		-0.00
Psi Blast		4.8e-18	8e-18	86-18		3.2e-16	1.6e-06	7.5e-13	1.5e-15		4.8e-10
END		144	152	137		85	505	450	372		370
STAR T AA		74	73	61		4	204	217	246		285
CHAI N ID		¥		A		A					J
PDB CI		2mss	2sxl	3xd		Ibuo	1gof	1gof	lgof		1dan
S e S		1835	1835	1835		1836	1836	1836	1836		1837

	7	٠,	٠,		<u> </u>	
PDB annotation	2 RECEPTOR ENZYME, INHIBITOR, GLA, EGF, 3 COMPLEX (SERINE PROTEASE/COFACTOR/LIGAND)	BLOOD COAGULATION, SERINE PROTEASE, COMPLEX, CO-FACTOR, 2 RECEPTOR ENZYME, INHIBITOR, GLA, EGF, 3 COMPLEX (SERINE PROTEASE/COFACTOR/LIGAND)	BLOOD COAGULATION, SERINE PROTEASE, COMPLEX, CO-FACTOR, 2 RECEPTOR ENZYME, INHIBITOR, GLA, EGF, 3 COMPLEX (SERINE PROTEASE/COFACTOR/LIGAND)	HYDROLASE/HYDROLASE INHIBITOR PROTEIN-PEPTIDE COMPLEX	HYDROLASEHYDROLASE INHIBITOR PROTEIN-PEPTIDE COMPLEX	HYDROLASE/HYDROLASE INHIBITOR PROTEIN-PEPTIDE COMPLEX
Coumpound	SOLUBLE TISSUE FACTOR; CHAIN: T, U; D-PHE-PHE-ARG- CHLOROMETHYLKETONE (DFFRCMK) WITH CHAIN: C;	BLOOD COAGULATION FACTOR VIIA; CHAIN: L, H; SOLUBLE TISSUE FACTOR; CHAIN: T, U; D-PHE-PHE-ARG- CHLOROMETHYLKETONE (DFFRCMK) WITH CHAIN: C;	BLOOD COAGULATION FACTOR VIIA; CHAIN: L, H; SOLUBLE TISSUE FACTOR; CHAIN: T, U; D-PHE-PHE-ARG- CHLOROMETHYLKETONE (DFFRCMK) WITH CHAIN: C;	DES-GLA FACTOR VIIA (HEAVY CHAIN); CHAIN: H, I; DES-GLA FACTOR VIIA (LIGHT CHAIN); CHAIN: L, M; (DPN)- PHE-ARG; CHAIN: C, D; PEPTIDE E-76; CHAIN: X, Y;	DES-GLA FACTOR VIIA (HEAVY CHAIN); CHAIN: H, I; DES-GLA FACTOR VIIA (LIGHT CHAIN); CHAIN: L, M; (DPN)- PHE-ARG; CHAIN: C, D; PEPTIDE E-76; CHAIN: X, Y;	DES-GLA FACTOR VIIA (HEAVY CHAIN); CHAIN: H, I; DES-GLA FACTOR VIIA (LIGHT CHAIN); CHAIN: L, M; (DPN)- PHE-ARG; CHAIN: C, D; PEPTIDE E-76; CHAIN: X, Y;
SEQFOL D score						
PMF score		-0.20	-0.20	-0.20	-0.19	-0.20
Verify score		0.04	0.21	0.09	0.10	0.27
Psi Blast		1.1e-12	3.2e-08	4.8e-10	1.1e-12	3.2e-08
END AA		449	583	370	449	583
STAR T AA		361	530	285	361	530
CHAI		1	H	7	1	J
PDB CI		1dan	Idan	1dva	Idva	Idva
SEQ EQ		1837	1837	1837	1837	1837

PDB annotation	MATRIX PROTEIN EXTRACELLULAR MATRIX, CALCIUM-BINDING, GLYCOPROTEIN, 2 REPEAT, SIGNAL, MULTIGENE FAMILY, DISEASE MUTATION, 3 EGF-LIKE DOMAIN, HUMAN FIBRILLIN-1 FRAGMENT, MATRIX PROTEIN	MATRIX PROTEIN EXTRACELLULAR MATRIX, CALCIUM-BINDING, GLYCOPROTEIN, 2 REPEAT, SIGNAL, MULTIGENE FAMILY, DISEASE MUTATION, 3 EGF-LIKE DOMAIN, HUMAN FIBRILLIN-1 FRAGMENT, MATRIX PROTEIN	MATRIX PROTEIN EXTRACELLULAR MATRIX, CALCIUM-BINDING, GLYCOPROTEIN, 2 REPEAT, SIGNAL, MULTIGENE FAMILY, DISEASE MUTATION, 3 EGF-LIKE DOMAIN, HUMAN FIBRILLIN-1 FRAGMENT, MATRIX PROTEIN	LIPID BINDING PROTEIN LDL RECEPTOR; BETA HAIRPIN, 3-10 HELIX, CALCIUM BINDING	LIPID BINDING PROTEIN LDL RECEPTOR; BETA HAIRPIN, 3-10 HELIX, CALCIUM BINDING	BLOOD CLOTTING COMPLEX(SERINE PROTEASE/COFACTOR/LIGAND), BLOOD COAGULATION, 2 SERINE
Coumpound	FIBRILLIN; CHAIN: NULL;	FIBRILLIN; CHAIN: NULL;	FIBRILLIN; CHAIN: NULL;	LOW-DENSITY LIPOPROTEIN RECEPTOR; CHAIN: A;	LOW-DENSITY LIPOPROTEIN RECEPTOR; CHAIN: A;	BLOOD COAGULATION FACTOR VIIA; CHAIN: L; BLOOD COAGULATION FACTOR VIIA; CHAIN: H;
SEQFOL D score	·					
PMF score	-0.19	-0.17	-0.20	-0.20	-0.20	-0.20
Verify score	0.19	0.07	0.03	0.03	0.13	0.22
Psi Blast	1.4e-10	3.2e-09	4.8e-09	1.66-11	4.8e-09	3.2e-08
END	185	227	283	182	221	583
STAR T AA	107	149	530	102	143	530
CHAI N ID				A	V	ı
PDB ID	lemn	lemn	lemn	1f5y	1f5y	1fak
SEQ D NO:	1837	1837	1837	1837	1837	1837

PDB annotation	BLOOD COAGULATION, SERINE PROTEASE		BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION PACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN	BLOOD COAGULATION FACTOR STUART FACTOR; BLOOD COAGULATION FACTOR, SERINE PROTEINASE, EPIDERMAL 2 GROWTH FACTOR LIKE DOMAIN			HYDROLASE HYDROLASE, NAD BINDING PROTEIN	OXIDOREDUCTASE OXIDOREDUCTASE, TROPANE ALKALOID BIOSYNTHESIS, REDUCTION OF 2 TROPINONE TO TROPINE, SHORT-CHAIN DEHYDROGENASE
Coumpound	(LIGHT CHAIN); CHAIN: L; COAGULATION FACTOR VIIA (HEAVY CHAIN); CHAIN: H; TRIPEPTIDYL INHIBITOR; CHAIN: C;	MEMBRANE PROTEIN VITELLINE MEMBRANE OUTER LAYER PROTEIN I IVMO 3	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	BLOOD COAGULATION FACTOR XA; CHAIN: L, C;	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	LECTIN (AGGLUTININ) WHEAT GERM AGGLUTININ (ISOLECTIN 2) 9WGA 3	S-ADENOSYLHOMOCYSTEINE HYDROLASE; CHAIN: A, B;	TROPINONE REDUCTASE-1; CHAIN: A, B;
SEQFOL D score								
PMF score		-0.19	-0.20	-0.20	-0.14	-0.14	0.00	0.21
Verify score		0.19	0.22	0.04	0.21	0.01	-0.09	0.34
Psi Blast		3e-15	1.6e-08	4.8e-11	9.6e-16	4.8e-16	0.0032	0.00064
END		470	585	158	403	476	207	215
STAR T AA		303	530	73	250	275	163	173
CHAI N ID		A	H	L	Ą	V V	¥	<
PDB ID		lvmo	lxka	lxka	9wga	вам6	1a7a	lael
SEQ NO.		1837	1837	1837	1837	1837	1838	1838

PDB annotation	OXIDOREDUCTASE OXIDOREDUCTASE, TROPANE ALKALOID BIOSYNTHESIS, REDUCTION OF 2 TROPINONE TO TROPINE, SHORT-CHAIN DEHYDROGENASE	OXIDOREDUCTASE NAD- DEPENDENT OXIDOREDUCTASE, SHORT-CHAIN ALCOHOL 2 DEHYDROGENASE, PCB	OXIDOREDUCTASE AMINO ACID DEHYDROGENASE, OXIDATIVE DEAMINATION MECHANISM, 2 OXIDOREDUCTASE	OXIDOREDUCTASE (CH-OH(D)- NAD(A)) OXIDOREDUCTASE 1CDO 15	OXIDOREDUCTASE (CH-OH(D)- NAD(A)) OXIDOREDUCTASE 1CDO 15	OXIDOREDUCTASE SHORT-CHAIN DEHYDROGENASE, OXIDOREDUCTASE	OXIDOREDUCTASE RETINOL DEHYDROGENASE, GASTRIC ALCOHOL ROSSMANN OR DINUCLEOTIDE FOLD	OXIDOREDUCTASE RETINOL DEHYDROGENASE, GASTRIC ALCOHOL ROSSMANN OR DINUCLEOTIDE FOLD	OXIDOREDUCTASE BETA1 ADH;
Coumpound	TROPINONE REDUCTASE-1; CHAIN: A, B;	CIS-BIPHENYL-2,3- DIHYDRODIOL-2,3- DEHYDROGENASE; CHAIN: NULL;	L-PHENYLALANINE DEHYDROGENASE; CHAIN: A; L-PHENYLALANINE DEHYDROGENASE; CHAIN: B;	ALCOHOL DEHYDROGENASE; ICDO 6 CHAIN: A, B; 1CDO 7	ALCOHOL DEHYDROGENASE; ICDO 6 CHAIN: A, B; 1CDO 7	CARBONYL REDUCTASE; CHAIN: A, B, C, D;	ALCOHOL DEHYDROGENASE CLASS IV SIGMA CHAIN; CHAIN: A, B, C, D;	ALCOHOL DEHYDROGENASE CLASS IV SIGMA CHAIN; CHAIN: A, B, C, D;	HUMAN BETAI ALCOHOL
SEQFOL D score	·			56.21			64.19		
PMF score	0.05	0.25	0.89		1.00	0.03		1.00	1.00
Verify score	0.44	-0.07	0.67		0.64	0.19		0.81	0.63
Psi Blast	0.00064	4.8e-05	0.00013	1.3e-76	1.3e-76	3.2e-05	4.8e-75	4.8e-75	3.2e-81
END	215	222	221	367	366	261	367	366	366
STAR T AA	173		173	-	25	173	-	26	25
CHAI N ID	В		A	A	A	Ą	4	¥	¥
PDB ID	lael	1bdb	lcld	1cdo	1cdo	lcyd	ldIt	ıdıt	Ideh
SEQ ID NO:	1838	1838	1838	1838	1838	1838	1838	1838	1838

PDB annotation	ALCOHOL DEHYDROGENASE 1DEH 26	OL OXIDOREDUCTASE BETAI ADH; SH 7 IDEH 9 NAD+ DEPENDENT ALCOHOL DEHYDROGENASE IDEH 26				,	, C	COHOL OXIDOREDUCTASE AIN: A, OXIDOREDUCTASE, ZINC, NADP	COHOL OXIDOREDUCTASE AIN: A, OXIDOREDUCTASE, ZINC, NADP	C3 OXIDOREDUCTASE SE; OXIDOREDUCTASE	INONE	INONE
Coumpound	CHAIN: A, B; 1DEH 8	HUMAN BETA1 ALCOHOL DEHYDROGENASE; IDEH 7 CHAIN: A, B; IDEH 8	ALCOHOL DEHYDROGENASE, CLASS II; CHAIN: A, B;	ALCOHOL DEHYDROGENASE; CHAIN: A, B;	OXIDOREDUCTASE 3-ALPHA, 20-BETA-HYDROXYSTEROID	DEHYDROGENASE (E.C.1.1.1.53) 1HDC 3	COMPLEXED WITH CARBENOXOLONE 1HDC 4	NADP-DEPENDENT ALCOHOL DEHYDROGENASE; CHAIN: A, B, C, D;	NADP-DEPENDENT ALCOHOL DEHYDROGENASE; CHAIN: A, B, C, D;	FLAVOCYTOCHROME C3 FUMARATE REDUCTASE; CHAIN: A, D;	OXIDOREDUCTASE QUINONE OXIDOREDUCTASE COMPLEXED WITH NADPH 100R 3	OXIDOREDUCTASE QUINONE
SEQFOL D score		74.95						53.09			116.09	
PMF score			1.00	00.1	0.45				1.00	0.47		1.00
Verify			0.77	0.73	-0.03				0.59	0.28		0.75
Psi Blast		3.2e-81	1.6e-69	4.8e-77	6.66-07			1.6e-51	1.6e-51	0.0032	8e-70	8e-70
END	}	367	366	366	284			369	367	207	370	367
STAR T AA		3	26	દર	173			24	20	168	37	38
CHAI N ID		4	∢	¥	4			∢	∢	¥	¥	∢
PDB CI		1deh	le3i	1ee2	1hdc			1kev	lkev	1408	lqor	lqor
SEQ 15 NO:		1838	1838	1838	1838			1838	1838	1838	1838	1838

PDB annotation		OXIDOREDUCTASE GLUTATHIONE- DEPENDENT FORMALDEHYDE DEHYDROGENASE, NAD+	DEPENDENT ALCOHOL DEHYDROGENASE 2	GLUTATHIONE DEPENDENT FORMALDEHYDE DEHYDROGENASE	OXIDOREDUCTASE GLUTATHIONE- DEPENDENT FORMALDEHYDE	DEHYDROGENASE, NAD+ DEPENDENT ALCOHOL	DEHYDROGENASE 2	FORMAL DEHYDE	TB ANGEER ASE	(METHYLTRANSFERASE) COMT:	TRANSFERASE,	METHYL TRANSFERASE,	NEUROTRANSMITTER DEGRADATION	OXIDOREDUCTASE NAPHTHOL	REDUCTASE; OXIDOREDUCTASE	OXIDOREDUCTASE	OXIDOREDUCTASE	OXIDOREDUCTASE	OXIDOREDUCTASE			KINASE KINASE, SIGNAL TRANSDUCTION,
Coumpound	1QOR 3	HUMAN CHICHI ALCOHOL DEHYDROGENASE; CHAIN: A, B;	,		HUMAN CHICHI ALCOHOL DEHYDROGENASE: CHAIN: A.	À			CATECHOLO	METHYLTRANSFERASE:	CHAIN: NULL;			TRIHYDROXYNAPHTHALENE	REDUCTASE; CHAIN: A, B;	NADP-DEPENDENT ALCOHOL	DEHYDROGENASE; CHAIN: A,	NADP-DEPENDENT ALCOHOL	DEHYDROGENASE; CHAIN: A,	B, C, D;		CALCIUM/CALMODULIN- DEPENDENT PROTEIN KINASE;
SEQFOL D score		72.11														52.30						52.68
PMF score					00'1				0.47	74.0				0.49				1.00				
Verify score					09.0				0.51					-0.20				0.56				
Psi Blast		1.6e-86			98-99.1				00000	2000				9.6e-05		4.8e-54		4.8e-54				9.6e-09
END		367			366				996	2				280		370		367			3	349
STAR T AA		-			22				141	5				173		24		52				1,1
CEAI N ID		¥			Ą									٧		¥		4				
PDB TD		Iteh			1teh				1.00	2				lybv		lykf		1ykf				1206
SEQ ID NO:		1838			1838				1838	3				1838		1838		1838			000.	1839

							_						_																_	
PDB annotation	CALCTUM/CALMODULIN	COMPLEX (ISOMERASE/PROTEIN KINASE) FKRP12:	SERINE/THREONINE-PROTEIN	KINASE RECEPTOR R4; COMPLEX	(ISOMERASE/PROTEIN KINASE), PECEPTOR 2 SEPINE/THRECONINE	KINASE	COMPLEX (ISOMERASE/PROTEIN	KINASE) FKBP12;	SEKINE/ IHKEONINE-PROTEIN	(ISOMERASE/PROTEIN KINASE).	RECEPTOR 2 SERINE/THREONINE	KINASE	TRANSFERASE CSK; PROTEIN	KINASE, C-TERMINAL SRC KINASE,	PHOSPHORYLATION, 2	STAUROSPORINE, TRANSFERASE	TRANSFERASE CSK; PROTEIN	KINASE, C-TERMINAL SRC KINASE,	PHOSPHORYLATION, 2	STAUROSPORINE, TRANSFERASE	TRANSFERASE CSK; PROTEIN	KINASE, C-TERMINAL SRC KINASE,	PHOSPHORYLATION, 2	STAUROSPORINE, TRANSFERASE	PHOSPHOTRANSFERASE FGFRIK,	FIBROBLAST GROWTH FACTOR	RECEPTOR I; TRANSFERASE,	TYROSINE-PROTEIN KINASE, ATP-	BINDING, 2 PHOSPHORY LA LION,	RECEFIOR, PHOSPHOTRANSFERASE
Coumpound	CHAIN: NULL;	FK506-BINDING PROTEIN; CHAIN: A C F G: TGF-B	SUPERFAMILY RECEPTOR	TYPE I; CHAIN: B, D, F, H;			FK506-BINDING PROTEIN;	CHAIN: A, C, E, G; TGF-B	SUPERFAMILY RECEPTOR	I IFE I; CHAIN: B, D, F, II;			C-TERMINAL SRC KINASE;	CHAIN: A;			C-TERMINAL SRC KINASE;	CHAIN: A;			C-TERMINAL SRC KINASE;	CHAIN: A;			FGF RECEPTOR 1; CHAIN: A, B;					
SEQFOL D score		58.79											62.45												70.22					
PMF score							90.0										0.00				0.01									
Verify score							-0.17										-0.33				-0.39									
Psi Blast		1.1e-15					1.5e-13						3.2e-27				1.5e-13				3.2e-27				1.1e-26					
END		350			_		199						337				197				334				688			,		
STAR T AA		20					70						73				78				87				49					
CHAI N ID		В			_		В						Ą				Ą				∢				Ą					
PDB ID		1b6c					1b6c				•		1byg				lbyg				1byg				1fgk			,		
S e S		1839					1839						1839				1839				1839				1839					

PDB annotation	PHOSPHOTRANSFERASE FGFRIK, FIBROBLAST GROWTH FACTOR RECEPTOR 1; TRANSFERASE, TYROSINE-PROTEIN KINASE, ATP-BINDING, 2 PHOSPHORYLATION, RECEPTOR, PHOSPHOTRANSFERASE	PHOSPHOTRANSFERASE FGFRIK, FIBROBLAST GROWTH FACTOR RECEPTOR 1; TRANSFERASE, TYROSINE-PROTEIN KINASE, ATP-BINDING, 2 PHOSPHORYLATION, RECEPTOR, PHOSPHOTRANSFERASE	TRANSFERASE P150, C-ABL; KINASE, KINASE INHIBITOR, STI- 571, ACTIVATION LOOP	PROTEIN KINASE CDK2; TRANSFERASE, SERINE/THREONINE PROTEIN KINASE, ATP-BINDING, 2 CELL CYCLE, CELL DIVISION, MITOSIS, PHOSPHORYLATION	COMPLEX (TRANSFERASE/SUBSTRATE) TYROSINE KINASE, SIGNAL TRANSDUCTION, PHOSPHOTRANSFERASE, 2 COMPLEX (KINASE/PEPTIDE SUBSTRATE/ATP ANALOG), ENZYME, 3 COMPLEX (TRANSFERASE/SUBSTRATE)	COMPLEX (TRANSFERASE/SUBSTRATE)
Compound	FGF RECEPTOR 1; CHAIN: A, B;	FGF RECEPTOR 1; CHAIN: A, B;	PROTO-ONCOGENE TYROSINE-PROTEIN KINASE ABL; CHAIN: A, B;	HUMAN CYCLIN-DEPENDENT KINASE 2; CHAIN: NULL;	INSULIN RECEPTOR; CHAIN: A; PEPTIDE SUBSTRATE; CHAIN: B;	INSULIN RECEPTOR; CHAIN: A; PEPTIDE SUBSTRATE; CHAIN:
SEQFOL D score	71.37				61.82	
PMF score		0.41	0.10	0.33		0.16
Verify		0.11	-0.20	-0.13		0.10
Psi Blast	3.2e-26	3.2e-26	1.6e-27	1.4e-22	3.26-26	3.2e-26
END	338	335	332	321	350	332
STAR T AA	83	83	84	79	8	87
CHAI N ID	Д	M.	∢		4	A
PDB ID	lígk	1fgk	1fpu	lhcl	1ir3	lir3
SEQ NO:	1839	1839	1839	1839	1839	1839

PDB annotation	TYROSINE KINASE, SIGNAL TRANSDUCTION, PHOSPHOTRANSFERASE, 2 COMPLEX (KINASE/PEPTIDE SUBSTRATE/ATP ANALOG), ENZYME, 3 COMPLEX (TRANSFERASE/SUBSTRATE)	TYROSINE KINASE TYROSINE KINASE-INHIBITOR COMPLEX, DOWN-REGULATED KINASE, 2 ORDERED ACTIVATION LOOP	TRANSFERASE KDR; TYROSINE KINASE		CONTRACTILE PROTEIN TROPOMYOSIN COILED-COIL ALPHA-HELICAL, CONTRACTILE PROTEIN	ISOMERASE ISOMERASE, MUTASE, INTRAMOLECULAR TRANSFERASE	COMPLEX (TRANSDUCER/TRANSDUCTION) GT BETA-GAMMA, MEKA, PP33; PHOSDUCIN, TRANSDUCIN, BETA-GAMMA, SIGNAL TRANSDUCTION, 2 REGULATION, PHOSPHORYLATION, G PROTEINS, THIOREDOXIN, 3 VISION, MEKA, COMPLEX (TRANSDUCER/TRANSDUCTION)	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA),
Coumpound	á	HAEMATOPOETIC CELL KINASE (HCK); CHAIN: A;	VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR CHAIN: A;		TROPOMYOSIN; CHAIN: A, B, C, D	METHYLMALONYL-COA MUTASE; CHAIN: A, B, C, D;	TRANSDUCIN; CHAIN: B, G; PHOSDUCIN; CHAIN: P;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX
SEQFOL D score								
PMF		0.29	0.03		-0.20	-0.13	-0.19	0.00
Verify		-0.26	-0.38		0.14	61.0	0.53	-0.46
Psi Blast		1.1e-24	1.6e-20	-	8e-09	1.3e-08	4.5e-09	8e-23
END		347	336		176	162	112	161
STAR TAA		84	87		2	2	9	117
CHAI N ID		¥	A		Ą	∢ .	ч	A
PDB UI		1qcf	lvr2		lclg	Ireq	2trc	lalh
SEQ NO.		1839	1839		1840	1840	1840	1841

PDB annotation		3 ZINC FINGER, DNA-BINDING PROTEIN	┢						_	_				PROTEIN	COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA),	3 ZINC FINGER, DNA-BINDING			_		PROTEIN	NO.		. 2				B)	•	COMPLEX (ZINC FINGER/DINA) ZINC	INTER A CTION BROTEIN DESIGN 2	INTERACTION, FROTEIN DESIGN, 2
Coumpound		OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX	OFICONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX .	OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	TRANSCRIPTION REGULATION	YEAST TRANSCRIPTION	FACTOR ADRI (RESIDUES 102 -	130) 1ARD 3 (AMINO	TERMINAL ZINC FINGER	DOMAIN) (NMR, 10	STRUCTURES) 1ARD 4 (ADR1B)	1ARD 5	DNA; CHAIN: A, B, D, E;	PROTEIN: CHAIN: C E G.	INCIDENT CALCIMIT. C. 1, C.
SEQFOL	Dscore		75.37																														
PMF	score						0.93				0.25				0.33				0.87				0.81								0.22		
Verify	score	ļ					-0.18				90.0				-0.34				-0.66				-0.12								-0.12		
Psi Blast			6.4e-30				6.4e-30				3.2e-26				6.4e-24				6.4e-30				1.6e-06								1.6e-38		
END	¥		249				247				281				400				428				376								191		
STAR	TAA		166				167				195				325				348				348								109		
CHAI	e v		¥				¥				∢				Ą				∢												ပ		
PDB	e		lalh				laih				laih				lalh				lalh				lard								lmey		
SEQ	B Ö		1841	_			1841				1841				1841				1841				1841								1841		

PDB annotation	(ZINC FINGER/DNA)	GOMPLEX (ZINC FINGER/DNA) ZINC SER FINGER, PROTEIN-DNA		CRYSTAL STRUCTURE, COMPLEX		_		CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)				 (ZINC FINGER/DNA)		_		 (ZINC FINGER/DNA)				CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)				_	(ZINC FINGER/DNA)	-	GER FINGER, PROTEIN-DNA	
Coumpound		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		DNA: CHAIN: A. B. D. E.	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;	(, ()		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	
SEQFOL D score									83.84																				
PMF score		96.0			1.00	}							0.22				0.22					0.82					0.70		
Verify		-0.01			0.11								-0.14				-0.60					61.0-					0.13		
Psi Blast		1.6e-47			1.6e-48				1.6e-48				8e-45				1.le-41					1.6e-45	-				1.le-12		
END AA		219			247				248				282				400					428		_			247		
STAR T AA		138			166				166				194				324					347					220		
CHAI		ပ			C)			C				ပ				၁					၁					D		
PDB		1шеу			Imev	<u> </u>			Imey	•			Imey				1mey					Imey					Imey		
SEQ No.		1841			1841	:			1841				1841				1841					1841					1841		

PDB annotation	CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)			G; INTERACTION, PROTEIN DESIGN, Z	(ZINC FINGER/DNA)		GER FINGER, PROTEIN-DNA G: NTEPACTION PROTEIN DESIGN 2		(ZINC FINGER/DNA)	ZINC FINGER TRANSCRIPTION	FACTOR SP1; ZINC FINGER,	干	•	GENE; NMR, TFIIIA, PROTEIN, DNA,	TRANSCRIPTION FACTOR, 5S RNA 2	GENE, DNA BINDING PROTEIN,	ZINC FINGER, COMPLEX 3	(TRANSCRIPTION	REGULATION/DNA)			(TRANSCRIPTION	REGULATION/DNA), RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC	FINGER PROTEIN		VE; REGULATION/DNA) COMPLEX	
Coumpound		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	Motern, Circuit,		SPIFZ; CHAIN: NULL;		TRANSCRIPTION FACTOR IIIA:	CHAIN: A; 5S RNA GENE;	CHAIN: E, F;						TFIIIA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F;		•			TFIIIA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE;	C C C C C C C C C C C C C C C C C C C
SEQFOL D score																				74.20									_
PMF score		0.95				0.48				0.03		-0.11															0.49		_
Verify score		-0.26				0.03				-0.21		0.03															-0.25		
Psi Blast		6.4e-13				1.6e-13				8e-09		1.1e-20								3.2e-33							3.2e-33		
END		372				428	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			376		267								278							284		
STAR T AA		345				401				348		195	:							112							139		
CHAI N ID		ຍ				G						¥								۷.							¥		
PDB ID		1mey				lmey				1sp2	,	1453								<u></u>							1tf6		_
SEQ No.		1841				1841				1841		1841								1841							1841		_

PDB annotation	POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX	(TRANSCRIPTION REGIL ATTOMONA) RNA	POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC	FINGER PROTEIN	COMPLEX (TRANSCRIPTION	REGULATION/DNA) COMPLEX (TRANSCRIPTION	REGULATION/DNA), RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION
Coumpound		TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F;	•		TFIIIA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE; CHAIN: B. C. F. F:				YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;					YY1; CHAIN: C; ADENO-	ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;					YYI; CHAIN: C; ADENO-
SEQFOL D score																			. 16.11								
PMF	_	0.19				0.04					0.19																0.78
Verify	·	-0:30				-0.37					-0.16																-0.33
Psi Blast		4.8e-31				6.4e-34					3.2e-30								3e-32		•			•			3e-32
END		437				488					219								248								247
STAR T AA		297				348					109								140								143
CHAI N ID		¥				A					ပ								ບ							,	၁
PDB ID		1476				1466					lubd								lubd							1	pgn
SEQ NO.		1841				1841					1841								1841							:	1841

PDB annotation	REGULATIONDNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)		COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING
Coumpound	ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;	COMPLEX(TRANSCRIPTION REGULATION/DNA) TRAMTRACK PROTEIN (TWO ZINC-FINGER PEPTIDE) COMPLEXED WITH 2DRP 3 DNA 2DRP 4	ZINC FINGER PROTEIN GLI1; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII;
SEQFOL D score					76.50	
PMF		0.04	0.40	0.01		0.62
Verify score		-0.25	-0.46	-0.52		-0.12
Psi Blast		3.2e-32	6.4e-30	4.8e-06	1.6e-32	6e-29
END AA		281	428	371	283	252
STAR T AA		174	332	323	138	140
CHAI N ID		O	O	∢	Ą	A
PDB ID		lubd	lubd	2drp	2gli	2gli
SEQ ID NO:		1841	1841	1841	1841	1841

Coumpound PDB annotation	CHAIN: A; DNA; CHAIN: C, D; GLI, ZINC FINGER, COMPLEX (DNA-	ZINC FINGER PROTEIN GLII; COMPLEX (DNA-BINDING CHAIN: A; DNA; CHAIN: C, D; PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-BINDING PROTEIN/DNA)	ALPHA SPECTRIN; CHAIN: A, REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2 2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	ALPHA SPECTRIN; CHAIN: A, STRUCTURAL PROTEIN TWO REPEATS OF SPECTRIN, ALPHA HELICAL LINKER REGION, 2.2 TANDEM 3-HELIX COILED-COILS, STRUCTURAL PROTEIN	SYNTAXIN BINDING PROTEIN ENDOCYTOSIS/EXOCYTOSIS 1; CHAIN: A; SYNTAXIN 1A; NSEC1; PROTEIN-PROTEIN CHAIN: B; COMPLEX, MULTI-SUBUNIT	SYNTAXIN BINDING PROTEIN 1; CHAIN: A; SYNTAXIN 1A; COMPLEX, MULTI-SUBUNIT COMPLEX, MULTI-SUBUNIT	SYNTAXIN BINDING PROTEIN ENDOCYTOSIS/EXOCYTOSIS 1; CHAIN: A; SYNTAXIN 1A; NSEC1; PROTEIN-PROTEIN CHAIN: B; COMPLEX, MULTI-SUBUNIT	SYNTAXIN-1A; CHAIN: A, B, C; SYNDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX BUNDLE	SYNTAXIN-1A; CHAIN: A, B, C; SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEN P454 THREE HEITY
CO	CHAIN: A; DN	ZINC FINGER CHAIN: A; DN	ALPHA SPECI B, C;	ALPHA SPECT B, C;	SYNTAXIN BI 1; CHAIN: A; S CHAIN: B;	SYNTAXIN BI I; CHAIN: A; S CHAIN: B;	SYNTAXIN BI I; CHAIN: A; S CHAIN: B;	SYNTAXIN-1/	SYNTAXIN-1/
SEQFOL D score									
PMF score		-0.05	-0.17	0.00	-0.20	-0.20	-0.17	-0.19	-0.19
Verify		0.09	1.09	0.39	0.41	0.57	0.43	0.78	0.83
Psi Blast		1.6e-32	1.5e-09	7.5e-05	4.5e-10	1.5e-17	1.5e-11	1e-09	3e-16
END		283	648	798	613	642	692	576	601
STAR T AA		146	211	999	437	481	513	447	485
CHAI N ID		4	4	V	B	æ	æ	V	4
PDB ID		2gli	Icun	lcun	1dn1	1dn1	1dn1	lez3	lez3
SEQ ID NO:		1841	1845	1845	1845	1845	1845	1845	1845

PDB annotation	BUNDLE	C; ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX BINNI E		C; ENDOCYTOSIS/EXOCYTOSIS SYNAPTOTAGMIN ASSOCIATED 35 KDA PROTEIN, P35A, THREE HELIX BUNDLE	SIGNALING PROTEIN GBP, GTP HYDROLYSIS, GDP, GMP, INTERFERON INDUCED, DYNAMIN 2 RELATED, LARGE GTPASE FAMILY. GMPPNP, GPPNHP.	MEMBRANE PROTEIN FOUR HELIX BUNDLE, ALPHA HELIX		ISOMERASE ISOMERASE, MUTASE, INTRAMOLECULAR TRANSFERASE	Y TRANSCRIPTION REGULATION LL; SIGMA70; RNA POLYMERASE SIGMA FACTOR, TRANSCRIPTION REGULATION	.;	COMPLEX
Coumpound		SYNTAXIN-1A; CHAIN: A, B, C;	SYNTAXIN-1A; CHAIN: A, B, C;	SYNTAXIN-IA; CHAIN: A, B, C;	INTERFERON-INDUCED GUANYLATE-BINDING PROTEIN I; CHAIN: A;	SSOI PROTEIN; CHAIN: A;	HUMAN SKELETAL MUSCLE ALPHA-ACTININ 2; CHAIN: A;	METHYLMALONYL-COA MUTASE; CHAIN: A, B, C, D;	RNA POLYMERASE PRIMARY SIGMA FACTOR; CHAIN: NULL;	RNA POLYMERASE PRIMARY SIGMA FACTOR, CHAIN: NULL;	TRANSDUCIN; CHAIN: B, G;
SEQFOL D score											
PMF score		-0.20	-0.17	0.00	-0.19	-0.20	-0.19	-0.08	-0.15	-0.20	-0.20
Verify score		1.11	86.0	0.21	0.74	0.55	0.70	0.48	0.76	0.40	0.22
Psi Blast		1.5e-16	3e-16	4.5e-05	3e-08	9e-13	3e-24	4.5e-31	4.5e-18	6e-17	1.5e-17
END		630	658	861	979	642	929	746	643	219	621
STAR T AA		511	526	739	485	485	460	451	485	486	488
CHAI N ID		¥	<	¥	⋖	Ą	Ą	Ä			Р
PDB ID		lez3	lez3	lez3	1f5n	1fio	lquu	1req	lsig	lsig	2trc
SEQ ID NO:		1845	1845	1845	1845	1845	1845	1845	1845	1845	1845

PDB annotation	(TRANSDUCER/TRANSDUCTION) GT BETA-GAMMA; MEKA, PP33; PHOSDUCIN, TRANSDUCIN, BETA-GAMMA, SIGNAL TRANSDUCTION, 2 REGULATION, PHOSPHORYLATION, G PROTEINS, THIOREDOXIN, 3 VISION, MEKA, COMPLEX (TRANSDUCER/TRANSDUCTION)	COMPLEX (TRANSDUCER/TRANSDUCTION) GT BETA-GAMMA; MEKA, PP33; PHOSDUCIN, TRANSDUCIN, BETA-GAMMA, SIGNAL TRANSDUCTION, 2 REGULATION, PHOSPHORYLATION, G PROTEINS, THIOREDOXIN, 3 VISION, MEKA, COMPLEX (TRANSDUCER/TRANSDUCTION)	COMPLEX (TRANSDUCER/TRANSDUCTION) GT BETA-GAMMA; MEKA, PP3; PHOSDUCIN, TRANSDUCIN, BETA- GAMMA, SIGNAL TRANSDUCTION, 2 REGULATION, PHOSPHORYLATION, G PROTEINS, THIOREDOXIN, 3 VISION, MEKA, COMPLEX (TRANSDUCER/TRANSDUCTION)	TRANSCRIPTION REGULATION PROTO-ONCOGENE, NUCLEAR BODIES (PODS), LEUKEMIA, 2 TRANSCRIPTION REGULATION
Coumpound	PHOSDUCIN; CHAIN: P;	TRANSDUCIN; CHAIN: B, G; PHOSDUCIN; CHAIN: P;	TRANSDUCIN; CHAIN: B, G; PHOSDUCIN; CHAIN: P;	TRANSCRIPTION FACTOR PML; CHAIN: NULL;
SEQFOL D score				
PMF score		-0.19	-0.20	0.59
Verify score		0.29	0.23	-0.68
Psi Blast		1.5e-20	1.5e-13	1.1e-07
END		647	746	55
STAR T AA		513	577	29
CHAI N ID		Δ.	D.	
PDB ID		2trc	2trc	1bor
SEQ NO.		1845	1845	1849

PDB annotation	ACTIN BINDING PROTEIN ABP-120; ACTIN BINDING PROTEIN, STRUCTURE, IMMUNOGLOBULIN, GELATION 2 FACTOR, ABP-120	ACTIN BINDING PROTEIN ABP-120; ACTIN BINDING PROTEIN, STRUCTURE, IMMUNOGLOBULIN, GELATION 2 FACTOR, ABP-120	ACTIN BINDING PROTEIN ABP-120; ACTIN BINDING PROTEIN, STRUCTURE, IMMUNOGLOBULIN, GELATION 2 FACTOR, ABP-120	ACTIN BINDING PROTEIN ACTIN BINDING PROTEIN 120; ACTIN BINDING PROTEIN, IMMUNOGLOBULIN, GELATION FACTOR, ABP-2 120	ACTIN BINDING PROTEIN ACTIN BINDING PROTEIN 120; ACTIN BINDING PROTEIN, IMMUNOGLOBULIN, GELATION FACTOR, ABP-2 120	ACTIN BINDING PROTEIN ACTIN BINDING PROTEIN 120; ACTIN BINDING PROTEIN, IMMUNOGLOBULIN, GELATION FACTOR, ABP-2120	ACTIN BINDING PROTEIN ACTIN BINDING PROTEIN 120; ACTIN BINDING PROTEIN, IMMUNOGLOBULIN, GELATION FACTOR, ABP-2 120	TRANSFERASE
Coumpound	GELATION FACTOR; CHAIN: NULL;	GELATION FACTOR; CHAIN: NULL;	GELATION FACTOR; CHAIN: NULL;	GELATION FACTOR; CHAIN: A, B;	GELATION FACTOR; CHAIN: A, B;	GELATION FACTOR; CHAIN: A, B;	GELATION FACTOR; CHAIN: A, B;	GLYCINE N.
SEQFOL D score	64.85			62.06				
PMF score		0.99	1.00	•	0.95	96.0	0.99	0.21
Verify score		0.47	0.54		0.11	0.52	0.52	-0.00
Psi Blast	4.5e-30	4.5e-30	1.3e-19	6e-36	1.6e-13	1.36-19	6c-36	7.5e-06
END	200	498	499	515	494	528	528	331
STAR T AA	397	398	398	306	359	395	397	175
CHAI N ID			-	⋖	∢	∢	<	A
PDB ID	lksr	1ksr	1ksr	1qfh	1qfh	1qfh	Iqfh	1d2h
SEQ ID NO:	1849	1849	1849	1849	1849	1849	1849	1850

PDB annotation	METHYLTRANSFERASE	STRUCTURAL GENOMICS HYPOTHETICAL PROTEIN, METHANOCOCCUS JANNASCHII	TRANSFERASE SAM-BINDING DOMAIN, BETA-BARREL, MIXED ALPHA-BETA, HEXAMER, 2 DIMER	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX
Coumpound	METHYLTRANSFERASE; CHAIN: A, B, C, D;		HNRNP ARGININE N- METHYLTRANSFERASE; CHAIN: 1, 2, 3, 4, 5, 6;	TUMOR SÜPPRESSOR PIGINK4A; CHAIN: NULL;		GA BINDING PROTEIN ALPHA; C CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B;
SEQFOL D score					99.80	
PMF score		0.01	0.04	56.0	1.00	1.00
Verify score		0.24	0.11	0.39	0.33	0.55
Psi Blast		6.4e-09	1.3e-14	4.5e-32	4.5e-30 1.5c-36	7.5e-43
END		294	292	899	604	037
STAR T AA		177	148	538	447	486
CHAI N ID		¥	_		ED ED E	Σ1
PDB UD		1dus	1g6q	la5e	lapm lawc	Iawc
S A S		1850	1850	1853	1853	1833

PDB annotation	(TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR		COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBŢTAI; COMPLEX (TRANSCRIPTION REGIII ATION/DNA) DNA-BINDING
Coumpound	DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;
SEQFOL D score		94.92			
PMF			1.00	1.00	1.00
Verify score			0.72	0.70	0.60
Psi Blast		1.26-45	6.4e-35	1.2e-45	1.5e-44
END		705	704	737	077
STAR T AA		551	556	584	617
CHAI N ID		B	В	\alpha .	æ
PDB ID		Jawc	lawc	lawc	lawc
SEQ NO.		1853	1853	1853	1853

PDB annotation	2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANK YRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (ISOMERASE/PROTEIN KINASE) FKBP12; SERINE/THREONINE-PROTEIN KINASE RECEPTOR R4; COMPLEX (ISOMERASE/PROTEIN KINASE), RECEPTOR 2 SERINE/THREONINE KINASE
Соитроипа		GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	FKS06-BINDING PROTEIN; CHAIN: A, C, E, G; TGP-B SUPERFAMILY RECEPTOR TYPE I; CHAIN: B, D, F, H;
SEQFOL D score					
PMF score		1.00	1.00	1.00	1.00
Verify score		0.63	0.34	0.74	0.37
Psi Blast		1.5e-42	1.6e-32	3e-35	3e-49
END		807	208	828	276
STAR T AA		651	929	289	26
CHAI N ID		_α	Д	æ	м
PDB UD		lawc	lawc	lawc	1b6c
SEQ NO.		1853	1853	1853	1853

									
PDB annotation	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL,
Coumpound	P19NNK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19NK4D CDK4/6 INHIBITOR; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;
SEQFOL D score									
PMF score	0.49	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Verify	0.37	99.0	0.58	0.76	0.32	0.51	0.21	0.77	0.63
Psi Blast	4.8e-10	4.5e-35	1.4e-40	1.5e-44	6e-42	1.5e-40	1.1e-36	3e-43	1.5e-41
END AA	574	\$09	637	673	739	802	610	673	743
STAR T AA	445	458	486	518	585	652	447	521	587
CHAI N ID							В	B	æ
PDB ID	1bd8	8pqI	1bd8	1bd8	1bd8	1bd8	1blx	1bfx	1blx
SEQ No.	1853	1853	1853	1853	1853	1853	1853	1853	1853

PDB annotation	ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR	PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL,	(INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18-	PI8INK4C, TUMOR, SUPPRESSOR,	CYCLIN- 2 DEPENDENT KINASE,	HOKMUNE/GROWIH FACTOR	HORMONE/GROWTH FACTOR P18-	PISINK4C, TUMOR, SUPPRESSOR,	CYCLIN-2 DEPENDENT KINASE,	HORMONE/GROWTH FACTOR	TRANSFERASE CSK; PROTEIN	KINASE, C-TERMINAL SRC KINASE,	PHOSPHORYLATION, 2 STATIROSPORINE TRANSFERASE										SIGNALING PROTEIN HELIX-TURN-	HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN-
Coumpound		CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN:				CYCLIN-DEPENDENT KINASE				CYCLIN-DEPENDENT KINASE	divinition, circuit. A,			C-TERMINAL SRC KINASE;	CHAIN: A;		PHOSPHOTE ANSFER ASE	CAMP-DEPENDENT PROTEIN	KINASE CATALYTIC SUBUNIT	ICMK 3 (E.C.2.7.1.37) ICMK 4	TRANSFERASE(PHOSPHOTRA	NSFERASE) CAMP-	DEPENDENT PROTEIN KINASE	(E.C.2.7.1.37) (CAPK) 1CTP 3	(CATALYTIC SUBUNIT) ICTP 4	CYCLIN-DEPENDENT KINASE	4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE
SEQFOL D score													,				50.05)			92.53							
PMF score		1.00				0.87				1.00				96.0												1.00		1.00
Verify score		09:0				0.16	•			09:0				18.0												0.73		0.36
Psi Blast		4.5e-41				8e-09				4.5e-33				1.4e-45			1 56-30	9			1.5e-30					le-35		1.5e-33
END AA		808				925				612				576			340	<u></u>			342					019		637
STAR T AA		651				444				486				24					_							478		510
CHAI N ID		В				٧				⋖				Ą			ţī	}			3					4		٧
PDB ID		1blx				6nq1				1bu9				1byg			lomk				1ctp	٠				149s		1d9s
SEQ NO:		1853				1853				1853				1853			1853	}	_		1853					1853		1853

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PDB annotation	HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN- HELIX, ANKYRIN REPEAT	SIGNALING PROTEIN HELIX-TURN- HEI IX ANKYRIN BEPEAT	SIGNALING PROTEIN HELIX-TURN-	SIGNALING PROTEIN HELIX-TURN-	HELIX, ANKYRIN KEPEAT	METAL BINDING PROTEIN ZINC.	BINDING MODULE, ANK TRUN REPEATS, METAL BINDING	PROJEIN	PHOSPHOTRANSFERASE FGFRIK,	FIBROBLAST GROWTH FACTOR	KECEPIOK I, IKANSFEKASE,	TYROSINE-PROTEIN KINASE, ATP-	BINDING, 2 PHOSPHORYLATION,	RECEPTOR,	PHOSPHOTRANSFERASE	PHOSPHOTRANSFERASE FGFRIK,	FIBROBLAST GROWTH FACTOR	RECEPTOR 1; TRANSFERASE,	TYROSINE-PROTEIN KINASE, ATP-	BINDING, 2 PHOSPHORYLATION,	RECEPTOR,	PHOSPHOTRANSFERASE	PHOSPHOTRANSFERASE FGFRIK,	FIBRUBLAST GROWIN FACTOR	RECEPTOR 1; TRANSFERASE,	TYROSINE-PROTEIN KINASE, ATP-	BINDING, 2 PHOSPHORYLATION,	RECEPTOR, PHOSPHOTRANSFERASE
Coumpound	4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE 4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE	CYCLIN-DEPENDENT KINASE	CYCLIN-DEPENDENT KINASE	4 INHIBITOR B; CHAIN: A;	PYK2-ASSOCIATED PROTEIN	BEIA; CHAIN: A;		FGF RECEPTOR 1; CHAIN: A, B;					•		FGF RECEPTOR 1; CHAIN: A, B;							FGF RECEPTOR 1; CHAIN: A, B;					
SEQFOL D score										114.87														112.87					
PMF score		1.00	1.00	1.00	0.92		0.51										1.00	,											
Verify score		0.65	0.36	0.43	0.54		0.13										0.46												
Psi Blast		7.5e-38	9e-37	1.2e-34	3e-34		4.5e-32			1.5e-45							1.5e-45							7.5e-45					
END		673	743	773	807		694			293							276							292					
STAR T AA		545	809	645	229		513			18							26							-					
CHAI N ID		Ą	Ą	Ą	A		∢			A					_		Ą			_				В					
PDB ID		1d9s	1d9s	1d9s	1d9s		1dcq			1fgk							1fgk							1fgk					
SEQ NO NO		1853	1853	1853	1853		1853			1853							1853							1853					

PDB annotation	PHOSPHOTRANSFERASE FGFRIK, FIBROBLAST GROWTH FACTOR RECEPTOR 1; TRANSFERASE, TYROSINE-PROTEIN KINASE, ATP-BINDING, 2 PHOSPHORYLATION, RECEPTOR, PHOSPHOTRANSFERASE	PHOSPHOTRANSFERASE C-SRC, P60-SRC; SRC, TYROSINE KINASE, PHOSPHORYLATION, SH2, SH3, 2 PHOSPHOTYROSINE, PROTO- ONCOGENE, PHOSPHOTRANSFERASE	TRANSFERASE P150, C-ABL; KINASE, KINASE INHIBITOR, STI- 571, ACTIVATION LOOP	PROTEIN KINASE CDK2; TRANSFERASE, SERNIE/THREONINE PROTEIN KINASE, ATP-BINDING, 2 CELL CYCLE, CELL DIVISION, MITOSIS, PHOSPHORYLATION	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	TRANSCRIPTION FACTOR P65; PS0D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX
Coumpound	FGF RECEPTOR 1; CHAIN: A, B;	TYROSINE-PROTEIN KINASE SRC; CHAIN: NULL;	PROTO-ONCOGENE TYROSINE-PROTEIN KINASE ABL; CHAIN: A, B;	HUMAN CYCLIN-DEPENDENT KINASE 2; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA-
SEQFOL D score				92.94			
PMF score	1.00	1.00	1.00		1.00	1.00	1.00
Verify score	0.50	0.79	0.51		0.36	0.41	0.41
Psi Blast	7.5e-45	1.2e-46	7.5e-45	9e-28	3e-34	4.5e-46	6e-53
END	276	276	276	326	809	647	089
STAR T AA	26	26	49	19	484	458	486
CHAI N ID	В		Ą		∢	О	D
PDB ID	1fgk	Ifmk	1fpu	Ihcl	lihb	likn	likn
SEQ ID NO:	1853	1853	1853	1853	1853	1853	1853

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PDB annotation		TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKBNPKB COMPLEX	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKBNIFKB COMPLEX	TRANSCRIPTION FACTOR P65; P50D; TRANSCRIPTION FACTOR, IKB/NFKB COMPLEX	COMPLEX (TRANSFERASE/SUBSTRATE) TYROSINE KINASE, SIGNAL TRANSDUCTION, PHOSPHOTRANSFERASE, 2 COMPLEX (KINASE/PEPTIDE SUBSTRATE/ATP ANALOG), ENZYME, 3 COMPLEX (TRANSFERASE/SUBSTRATE)	COMPLEX (TRANSFERASE/SUBSTRATE) TYROSINE KINASE, SIGNAL TRANSDUCTION, PHOSPHOTRANSFERASE, 2 COMPLEX (KINASE/PEPTIDE SUBSTRATE/ATP ANALOG), ENZYME, 3 COMPLEX (TRANSFERASE/SUBSTRATE)	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN,
Coumpound	B-ALPHA; CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-A1 PHA: CHAIN: D;	NF-KAPPA-B P65 SUBUNIT; CHAIN: A: NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA: CHAIN: D:	NF-KAPPA-B P65 SUBUNIT; CHAIN: A; NF-KAPPA-B P50D SUBUNIT; CHAIN: C; I-KAPPA- B-ALPHA; CHAIN: D;	INSULIN RECEPTOR; CHAIN: A; PEPTIDE SUBSTRATE; CHAIN: B;	INSULIN RECEPTOR; CHAIN: A; PEPTIDE SUBSTRATE; CHAIN: B;	MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL
SEQFOL D score					114.32			
PMF		1.00	1.00	1.00		1.00	0.93	1.00
Verify		0.21	0.26	0.15		0.65	0.46	0.46
Psi Blast		6e-58	4.5e-52	1.3e-54	1.5e-46 .	1.5e-46	8e-13	9e-23
END		749	775	810	306	276	523	563
STAR T AA		551	584	617	10	56	445	458
CHAI N ID		Q	D	Q	¥	4		
PDB ID		lika	1ikn	likn	lir3	lir3	lmyo	lmyo
SEQ B B S		1853	1853	1853	1853	1853	1853	1853

PDB annotation	ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN,	ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN,	ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANN I MIN 2 NEFENT RELIA	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYKIN Z KEPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX	(TRANSCRIPTION	REGULATION/ANK REPEAT),	ANKYRIN 2 REPEAT HELIX	COMPLEX (TRANSCRIPTION
Coumpound		MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL		MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL		MYOTROPHIN; CHAIN: NULL	NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	Ė		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	Œ,		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	ŗ.		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;	I-KAPPA-B-ALPHA; CHAIN: E,	ij.		NF-KAPPA-B P65; CHAIN: A, C;
SEQFOL D score			•																											
PMF		0.46	1.00	1.00		0.99	0.57		1.00	1.00					1.00					1.00			_		1.00					1.00
Verify score		-0.06	0.55	0.44		0.34	-0.03		0.37	0.50					0.52					0.54					0.20					0.56
Psi Blast		8e-16	4.5e-32	1.5e-36		1.5e-32	3e-33		1.5e-30	6e-43					3e-50					1.2e-53					1.5e-53					1.5e-53
END AA		685	635	699		735	892		800	289					229					749					778					815
STAR T AA		461	521	554		621	654		684	461					484					549					281					616
CHAI N ID	,									Ξ					щ					ш					ш					E
PDB ID		Ітуо	lmyo	1myo		Imyo	Imyo		1myo	Juff					Jul				,	ful.					101					Infi
SEQ B B SO:		1853	1853	1853		1853	1853		1853	1853					1853					1853					1853					1853

PDB annotation	REG/ANK REPEAT) COMPLEX (TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE; TRANSFERASE, MAP KINASE, SERINE/THREONINE-PROTEIN KINASE, 2 P38	TRANSFERASE MAP KINASE, SERINE/THREONINE PROTEIN KINASE, TRANSFERASE	TYROSINE KINASE TYROSINE KINASE-INHIBITOR COMPLEX, DOWN-REGULATED KINASE, 2 ORDERED ACTIVATION LOOP	IRANSFERASE ALPHA BETA FOLD	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ANK YRIN REPEATS, CELL-CYCLE	TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION, ANKYRIN REPEATS, CELL-CYCLE	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3	ONCOGENE/ANK YKIN IGEFEA I S) COMPLEX (ANTI- ONCOGENE/ANK YRIN REPEATS)
Coumpound	NF-KAPPA-B P50; CHAIN: B, D; I I-KAPPA-B-ALPHA; CHAIN: E, (F;	MAP KINASE P38; CHAIN: NULL;	ERK2; CHAIN: NULL;	HAEMATOPOETIC CELL KINASE (HCK); CHAIN: A;	Н	REGULATORY PROTEIN SWI6; 7 CHAIN: A, B; 7	REGULATORY PROTEIN SWI6, T	P53; CHAIN: A; 53BP2; CHAIN: B; H H H H H H H H H H H H H	P53; CHAIN: A; 53BP2; CHAIN: CB;
SEQFOL D score		92.67	97.49						
PMF				00'1	1.00	0.10	0.00	0.96	1.00
Verify score				0.66	0.71	-0.40	-0.17	0.27	0.31
Psi Blast		3e-27	6e-29	1.5e-49	7.5e-50	1.5e-17	1.5e-40	3.26-12	6.4e-12
END AA		359	358	276	276	592	759	503	578
STAR T AA		4	51	26	26	466	512	452	458
CHAI N ID				¥	A	∢	∢	æ	ф
PDB ID		1p38	Ipme	Iqcf	1qpc	1sw6	1sw6	1ycs	lycs
SEQ NO:		1853	1853	1853	1853	1853	1853	1853	1853

PDB annotation	P53BP2; ANK YRIN REPEÁTS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMIL Y, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3 POL YMORPHISM, COMPLEX (ANTI- ONCOGENE/ANK YRIN REPEATS)	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISEASE MUTATION, 3 POLYMORPHISM, COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS)
Coumpound		P53; CHAIN: A; 53BP2; CHAIN: B;	P53; CHAIN: A; 53BP2; CHAIN: B;	P53; CHAIN: A; 53BP2; CHAIN: B;
SEQFOL D score				
PMF		0.99	0.99	0.30
Verify score		0.09	0.26	-0.13
Psi Blast		6e-33	1.4e-38	7.5e-33
END AA		099	726	608
STAR T AA		488	554	654
CHAI N ID		æ	щ	в
PDB TD		lycs	lycs	1ycs
SEQ ID NO:		1853	1853	1853

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PDB annotation	TRANSFERASE MITOGEN ACTIVATED PROTEIN KINASE, MAP 2, ERK2; TRANSFERASE, SERINE/THREONINE-PROTEIN KINASE, MAP KINASE, 2 ERK2	SIGNALING PROTEIN GTP-BINDING PROTEINS, PROTEIN-PROTEIN COMPLEX, EFFECTORS	SIGNALING PROTEIN GTP-BINDING PROTEINS, PROTEIN-PROTEIN COMPLEX, EFFECTORS	SIGNALING PROTEIN G PROTEIN, GTP HYDROLYSIS, KINETIC CRYSTALLOGRAPHY, 2 SIGNALING PROTEIN	SIGNALING PROTEIN G PROTEIN, GTP HYDROLYSIS, KINETIC CRYSTALLOGRAPHY, 2 SIGNALING PROTEIN	ENDOCYTOSIS/EXOCYTOSIS G- PROTEIN, GTPASE, RAB6, VESICULAR TRAFFICKING	SIGNALING PROTEIN P21-RAC2; RHO GDI 2, RHO-GDI BETA, LY-GDI; BETA SANDWHICH, PROTEIN- PROTEIN COMPLEX, G-DOMAIN, 2 IMMUNOGLOBULIN FOLD, WALKER FOLD, GTP-BINDING
Coumpound	EXTRACELLULAR REGULATED KINASE 2; CHAIN: NULL;	RAS-RELATED PROTEIN RAP- 1A; CHAIN: A; PROTO- ONKOGENE SERINE/THREONINE PROTEIN KINASE CHAIN: B;	RAS-RELATED PROTEIN RAP- 14; CHAIN: A; PROTO- ONKOGENE SERNE/THREONINE PROTEIN KINASE CHAIN: B;	TRANSFORMING PROTEIN P21/H-RAS-1; CHAIN: A;	TRANSFORMING PROTEIN P21/H-RAS-1; CHAIN: A;	RAB6 GTPASE; CHAIN: A;	RAS-RELATED C3 BOTULINUM TOXIN SUBSTRATE 2; CHAIN: A; RHO GDP-DISSOCIATION INHIBITOR 2; CHAIN: B;
SEQFOL D score	107.86	85.26			77.02	·	
PMF score			1.00	1.00		1.00	0.59
Verify score			0.43	0.55		0.48	0.12
Psi Blast	9e-31	9.6e-68	9.6e-68	1.6e-68	1.6e-68	6.4e-56	3.2e-53
END	356	171	173	173	174	171	176
STAR T AA	5	_	,	1	-	8	
CHAI N ID		∢	«	Ą	¥	¥	¥
PDB CI	3erk	lcly	lcly	lctq	1ctq	1d5c	14s6
SEQ PO:	1853	1854	1854	1854	1854	1854	1854

PDB annotation	ENDOCYTOSIS/EXOCYTOSIS G PROTEIN, VESICULAR TRAFFIC, GTP HYDROLYSIS, YPTRAB 2 PROTEIN, ENDOCYTOSIS, HYDROLASE	GTP-BINDING PROTEIN GTP. BINDING PROTEIN, SMALL G PROTEIN, RAP2, GDP, RAS	GTP-BINDING PROTEIN GTP- BINDING PROTEIN, SMALL G PROTEIN, RAP2, GDP, RAS	GTP-BINDING GTP-BINDING, GTPASE, SMALL G-PROTEIN, RHO FAMILY, RAS SUPER 2 FAMILY	GTP-BINDING GTP-BINDING, GTPASE, SMALL G-PROTEIN, RHO FAMILY, RAS SUPER 2 FAMILY		COMPLEX (SMALL GTPASENUCLEAR PROTEIN) COMPLEX (SMALL GTPASENUCLEAR PROTEIN), SMALL GTPASE, 2 NUCLEAR TRANSPORT	COMPLEX (GTP- BINDING/EFFECTOR) RAS-RELATED PROTEIN RAB3A; COMPLEX (GTP-
Coumpound	GTP-BINDING PROTEIN YPT51; CHAIN: A;	RAP2A; CHAIN: NULL;	RAP2A; CHAIN: NULL;	RACI; CHAIN: NULL;	RACI; CHAIN: NULL;	ONCOGENE PROTEIN C-H-RAS P21 PROTEIN MUTANT WITH GLY 12 REPLACED BY PRO 1PLJ 3 (G12P) COMPLEXED WITH P3-1-(2- NITROPHENYL.)ETHYL- 1PLJ 4 GUANOSINE-5'-(B,G-IMIDO)- TRIPHOSPHATE 1PLJ 5	RAN; CHAIN: A, C; NUCLEAR PORE COMPLEX PROTEIN NUP358; CHAIN: B, D;	RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B;
SEQFOL D score			95.27	52.65			50.36	60.15
PMF score	1.00	1.00			0.94	1.00		
Verify score	0.31	0.49			0.28	0.37		
Psi Blast	6.4e-55	4.8e-64	4.8e-64	1.1e-53	1.1e-53	4.8e-52	4.8e-36	8e-59
END AA	174	171	174	174	176	171	186	179
STAR T AA			1	-	2		2	1
CHAI N ID	Ą						C	Ą
PDB ID	1ek0	Ikao	1kao	1mh1	1mh1	ilq.	Limp	1zbd
SEQ ID NO:	1854	1854	1854	1854	1854	1854	1854	1854

PDB annotation	BINDING/EFFECTOR), G PROTEIN, EFFECTOR, RABCDR, 2 SYNAPTIC EXOCYTOSIS, RAB PROTEIN, RAB3A, RABPHILIN	COMPLEX (GTP- BINDING/EFFECTOR) RAS-RELATED PROTEIN RAB3A; COMPLEX (GTP- BINDING/EFFECTOR), G PROTEIN, EFFECTOR, RABCDR, 2 SYNAPTIC EXOCYTOSIS, RAB PROTEIN, RAB3A, RABPHILIN	HYDROLASE CDC42/CDC42GAP; CDC42/CDC42GAP; TRANSITION STATE, G-PROTEIN, GAP, CDC42, ALF3., HYDROLASE	HYDROLASE G PROTEIN, VESICULAR TRAFFICKING, GTP HYDROLYSIS, RAB 2 PROTEIN, NEUROTRANSMITTER RELEASE, HYDROLASE	HYDROLASE G PROTEIN, VESICULAR TRAFFICKING, GTP HYDROLYSIS, RAB 2 PROTEIN, NEUROTRANSMITTER RELEASE, HYDROLASE	COMPLEX (SERINE PROTEASE/INHIBITOR) SKIN- DERIVED ANTILEUKOPROTEINASE (SKALP); HYDROLASE, SERINE PROTEASE, 3D-STRUCTURE, ZYMOGEN, PANCREAS, 2 SIGNAL, COMPLEX (SERINE PROTEASE/INHIBITOR)
Coumpound		RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B;	GTP BINDING PROTEIN (G25K); CHAIN: A; GTPASE ACTIVATING PROTEIN (RHG); CHAIN: B;	RAB3A; CHAIN: A;	RAB3A; CHAIN: A;	ELASTASE; CHAIN: E; ELAFIN; CHAIN: 1;
SEQFOL D score			54.33	68.59		
PMF score		96.0			0.99	0.48
Verify score		0.43			0.27	-0.71
Psi Blast		8e-59	3.2e-50	1.1e-59	1.1e-59	3.2e-16
END		. 9/1	193	174	174	72
STAR T AA		4	-	7	4	29
CHAI N ID		₹	4	⋖	4	_
PDB LD		1zbd	2ngr	3rab	3rab	1fle
SEQ NO		1854	1854	1854	1854	1856

PDB annotation	BINDING, MEMBRANE TRAFFICKIN, NON-MYRISTOYLATED IHUR 16	GTP-BINDING PROTEIN GTP- BINDING PROTEIN, SMALL G PROTEIN, RAP2, GDP, RAS	COMPLEX(GTPÁSE ACTIVATN/PROTO-ONCOGENE) GTPASE-ACTIVATING PROTEIN RHOGAP; COMPLEX (GTPASE ACTIVATION/PROTO-ONCOGENE), GTPASE, 2 TRANSITION STATE, GAP	HYDROLASE G PROTEIN, VESICULAR TRAFFICKING, GTP HYDROLYSIS, RAB 2 PROTEIN, NEUROTRANSMITTER RELEASE, HYDROLASE		COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
Coumpound	FACTOR I; IHUR 5 CHAIN: A, B; IHUR 7	RAP2A; CHAIN: NULL;	P50-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN RHOA; CHAIN: B;	RAB3A; CHAIN: A;		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLJGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLJGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;
SEQFOL D score		50.54					58.29		
PMF			-0.03	0.30		0.28		0.51	0.09
Verify score			0.22	-0.03		-0.07		0.40	-0.22
Psi Blast		1.6e-24 ·	1.6e-27	3.2e-33	_	3.2e-30	3.2e-31	3.2e-31	3.26-50
END AA		186	185	190		132	162	091	188
STAR T AA		61	ස	22		52	76	80	201
CHAI N ID			В	∢		A	Ą	¥	ن ان
aug ID		1 kao	1tx4	3rab	_	Jalh	lalh	1a1b	Imey
SEQ ID NO:		1857	1857	1857		1858	1858	1858	1858

	PDB CI	CHAI N ID	STAR T AA	END	Psi Blast	Verify score	PMF	SEQFOL D score	Coumpound	PDB annotation
теу	O		51	132	4.8e-50	-0.18	0.17		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
12	Imey C		79	160	1.4e-50	0.17	86.0		DNA; CHAM: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
1 💆	Imey C		79	161	1.4e-50			62.32	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)
143	₹	-	08	160	3.26-20	0.14	0.24		TRANSCRIPTION FACTOR IIIA; CHAIN: A; 5S RNA GENE; CHAIN: E, F;	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATION/DNA)
ا	Tubd C		56	160	1.3e-34	-0.08	0.39		YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)
2gli	4		11	162	3.2e-33	-0.10	0.10		ZINC FINGER PROTEIN GL11; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-

CHAI N ID		STAR T AA	END	Psi Blast	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
	┸								BINDING PROTEIN/DNA)
4 *:	-	51	188	4.8e-34			58.21	ZINC FINGER PROTEIN GL11; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
4	I	59	188	4.8e-34	-0.37	0.11		ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)
			,	,			,		The state of the s
V		115	198	6.4e-29			60.10	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN
¥		117	197	6.4e-29	-0.04	0.78		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING
				;				SITE; CHAIN: B, C;	PROTEIN
V		145	237	4.8e-27	-0.23	0.35		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE: CHAIN: B. C:	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTFIN
	-T	212	2772	6 40 15	200	0.12		Ocep 7aic enicep peptine.	COMPLEY (7THIC ENICED / DNA)
<		717	2/3	0.46-13	0.0			CHAIN: A; DUPLEX	COMPLEX (ZINC FINGER/DNA),
								OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	ZINC FINGER, DNA-BINDING PROTEIN
Ą		96	169	3.2e-25	-0.26	0.10		QGSR ZINC FINGER PEPTIDE;	COMPLEX (ZINC FINGER/DNA)
								CHAIN: A; DUPLEX	COMPLEX (ZINC FINGER/DNA),
								OLIGONUCLEO LIDE BINDING SITE; CHAIN: B, C;	ZINC FINGER, DNA-BINDING PROTEIN
၁		116	197	1.6e-50	-0.03	1.00		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
	_				-			CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
								PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX

PDB annotation	(ZINC FINGER/DNA)			CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	R FINGER, PROTEIN-DNA	CRYSTAL STRICTINE COMPLEY	(ZINC FINGER/DNA)				CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC			(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC			CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	R FINGER, PROTEIN-DNA		CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	ATION	
Coumpound		DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;	•	DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	PROTEIN: CHAIN: C E G	() () () () () () () () () () () () () (DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;		DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			TRANSCRIPTION REGULATION YEAST TRANSCRIPTION	EACTOR ADDIVERSIONES 120
SEQFOL D score		70.79																				ļ						
PMF score					0.43				0.12					0.00				0.35				0.42					0.81	
Verify score					-0.02				-0.35					-0.22				-0.10				-0.11					-0.29	
Psi Blast		1.6e-50			1.3e-46				1.1e-33					1.4e-26				1.1e-41				1.46-11					8e-06	
END		198			237				265					141				169				237					239	
STAR T AA		116			144				172					85				88				209					212	
CHAI N ID		ပ	•		၁				ပ					ပ				င				5						
PDB CD		lmey			1mey				lmey					Imey				Imey				lmey					l paa	
SEQ NO.		1859			1859				1859					1859				1859				1859					1859	

PDB annotation		ZINC FINGER TRANSCRIPTION FACTOR SP1; ZINC FINGER, TRANSCRIPTION ACTIVATION, SP1	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; SS GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, SS RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION
Coumpound	159) IPAA 3 (PAPA - CARBOXY TERMINAL ZINC FINGER DOMAIN) MUTANT WITH IPAA 4 PRO 131 REPLACED BY ALA, PRO 133 REPLACED BY ALA, CYS 140 IPAA 5 REPLACED BY ALA (P131A,P133A,C140A) (NMR, 10 STRUCTURES) IPAA 6	SPIF2; CHAIN: NULL;	TRANSCRIPTION FACTOR IIIA; CHAIN: A; 58 RNA GENE; CHAIN: E, F;	TRANSCRIPTION FACTOR IIIA; CHAIN: A; 5S RNA GENE; CHAIN: E, F;	TRANSCRIPTION FACTOR IIIA; CHAIN: A; 5S RNA GENE; CHAIN: E, F;
SEQFOL D score				55.20	
PMF		0.03	0.00		0.48
Verify score		-0.25	-0.52		-0.08
Psi Blast		3.2e-05	1.19-16	1.4e-20	1.4e-20
END		239	169	201	198
STAR T AA		212	105	114	117
CHAI N ID			∢	∢	∢
PDB TD		1sp2	91	9	103
SEQ BO		1859	1859	1859	1859

PDB annotation	REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION	REGULATION/DNA), RNA	TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX	(TRANSCRIPTION	REGULATION/DNA), RNA	TRANSCRIPTION INITIATION, ZINC	FINGER PROTEIN	COMPLEX (TRANSCRIPTION	KEGULATION/DNA) COMPLEX	REGULATION/DNA), RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC	FINGER PROJEIN	COMPLEX (TRANSCRIPTION	KEGOLATION/DINA) COMPLEX	REGULATION/DNA). RNA	POLYMERASE III, 2	TRANSCRIPTION INITIATION, ZINC	COMPLEX (TRANSCRIPTION	REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YYI, ZINC 2 FINGER PROTEIN, DNA-PROTEIN
Coumpound	R	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; RCHAIN: B, C, E, F:			TFIIIA; CHAIN: A, D; SS RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F; (1)	<u>∝</u>	<u>.</u>	<u> </u>		KIBOSOMAL KNA GENE; KIROSOMAL KNA GENE; CHAIN: B C E F:		<u>a</u>			IFILIA; CHAIN: A, D; 38			<u>a</u>	F- 11	YYI; CHAIN; C; ADENO-		LEMENT DNA;	CHAIN: A, B;
SEQFOL D score										98.99												-		
PMF		0.10			0.33																0.45			
Verify score		-0.24			-0.01										,	-0.25					-0.00			
Psi Blast		1.4e-28			1.1e-28				•	1.1e-28					,,	3.26-10	-				36-22			
END		239			275					237		•			1	0/1					220			
STAR T AA		105			117					50		_			2	8					110			
CHA1 N ID		¥			V					¥					1	<	•				S			
809 1D		1tf6			1tf6					9,410					2	911					Jubd			
SEQ NO:		1859			1859					1859					0,00	1639					1859			

PDB annotation	RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INTITATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX	REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC2	FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATIONDNA) TRANSCRIPTION REGULATION TRANSCRIPTION REGULATION	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA-BINDING) PROTEIN/DNA)
Coumpound		YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	ADR1; CHAIN: NULL;	ZINC FINGER PROTEIN GL11; CHAIN: A; DNA; CHAIN: C, D;
SEQFOL D score			68.47			
PMF score		0.07		0.98	0.37	0.33
Verify score		-0.06		-0.27	-0.05	-0.22
Psi Blast		3.2e-22	3.2e-33	3.2e-33	3.2e-16	6.4e-33
END		265	198	197	171	661
STAR T AA		152	98	93	117	901
CHAI N ID		ပ	ပ	ပ		¥
PDB ID		1ubd	lubd	lubd	2adr	2gli
SEQ ID	Ö	1859	1859	1859	1859	1859

PDB annotation	COMPLEX (DNA-BINDING PROTEINDNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEY (ZINC EINGER (DNIA)	COMPLEX (ZINC FINGER/DINA)	ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA),	ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA),	ZINC FINGER, DNA-BINDING	PROTEIN	GENE REGULATION POZ DOMAIN;	PROTEIN-PROTEIN INTERACTION	DOMAIN, TRANSCRIPTIONAL 2	REPRESSOR, ZINC-FINGER	PROTEIN, X-RAY	CRYSTALLOGRAPHY, 3 PROTEIN	STRUCTURE, PROMYELOCYTIC	LEUKEMIA, GENE REGULATION	GENE REGULATION FOZ DOMAIN;	PROTEIN-PROTEIN INTERACTION	DOMAIN, INANSCRIF HONAL 2	KEPKESSOK, ZINC-FINGER PROTEIN, X-RAY
Coumpound	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	OCCE AND ENICED DEPTINE:	CHAIN: A: DI PI EX	OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	OGSR ZINC FINGER PEPTIDE;	CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING SITE: CHAIN: B. C.	OGSR ZINC FINGER PEPTIDE:	CHAIN: A; DUPLEX	OLIGONUCLEOTIDE BINDING	SITE; CHAIN: B, C;	PROMYELOCYTIC LEUKEMIA	ZINC FINGER PROTEIN PLZF;	CHAIN: A;						PROMYELOCYTIC LEUKEMIA	ZINC FINGER PROTEIN PLZF;	CHAIN: A;	
SEQFOL D score	68.84			·		10.69														,	64.40			
PMF score		0.04	5	3.					0.41				1.00											
Verify		0.04	200). (C.D					-0.35				0.40											
Psi Blast	6.4e-33	1.3e-31	4 05 22	4.00-32		4.8e-32			3.2e-28				1.3e-37							ļ	1.3e-37			
END AA	238	237	767	764		453			488				126								126			
STAR T AA	83	96	271	1/6		372		····	399				4								n			
CHAI N ID	Ą	¥		ς.		Ą			4				Ą								∢			
PDB ID	2gli	2gli	11.51	IIaili		lalh			lalh				1buo								ong			
SEQ ID NO:	1859	1859	1950	0001		1860			1860				1860								7860			

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PDB annotation	CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, FROI BIN-DINA INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DINA)	COMPLEX (ZINC FINGER/DNA) ZINC	INTERACTION. PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC	FINGER, PROTEIN-DNA	INTERACTION, PROTEIN DESIGN, 2	CRYSTAL STRUCTURE, COMPLEX	(ZINC FINGER/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) TFIIIA; 5S	GENE; NMR, TFIIIA, PROTEIN, DNA,	TRANSCRIPTION FACTOR, 5S RNA 2	GENE, DNA BINDING PROTEIN,	ZINC FINGER, COMPLEX 3	(TRANSCRIPTION	REGULATION/DNA)	COMPLEX (TRANSCRIPTION	REGULATION/DNA) COMPLEX	(TRANSCRIPTION
Coumpound		DNA; CHAIN: A, B, D, E;	PROTEIN; CHAIN: C. F. G;			DNA; CHAIN: A, B, D, E;	PROTEIN: CHAIN: C. F. G.			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;			DNA; CHAIN: A, B, D, E;	CONSENSUS ZINC FINGER	PROTEIN; CHAIN: C, F, G;	,		TRANSCRIPTION FACTOR IIIA;	CHAIN: A; 5S RNA GENE;	CHAIN: E, F;						TFIIIA; CHAIN: A, D; 5S	RIBOSOMAL RNA GENE;	CHAIN: B, C, E, F;
SEQFOL D score			·							67.59																				
PMF score		60:0				1.00									0.71					0.23								0.11		
Verify score		-0.44				0.14									-0.16					-0.48								-0.38		
Psi Blast		1.6e-47				1.3e-50				1.3e-50					3.2e-47					3.2e-19								1.6e-31		
END		423				452				452					488					488								490		
STAR T AA		336				370				370					398					399								371		
CHAI N ID		ပ				ပ				၁			_		ပ					∀								Ą		
PDB ID		lmey				lmey				1mey					Imey					145								9,011		
SEQ No.		1860				1860				1860					1860					1860								1860		

PDB annotation	REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI;
Coumpound		YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;
SEQFOL D score		·				
PMF score		0.92	0.89	0.10	-0.20	0.07
Verify		-0.05	-0.03	-0.08	0.05	0.10
Psi Blast		1.1e-32	6.4e-34	4.8e-24	1.66-09	6.4e-34
END		448	488	493	313	452
STAR T AA		344	375	406	224	319
CHAI N ID		ပ	ບ	ပ	A	Ą
PDB ID		1ubd	lubd	1ubd	2gli	2gli
SEQ ID NO:		1860	1860	1860	1860	1860

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PDB annotation	GLI, ZINC FINGER, COMPLEX (DNA-BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	REPLICATION DNA NUCLEOTIDE EXCISION REPAIR, UVRABC, HELICASE, 2	HYPERTHERMOSTABLE PROTEIN	HYDROLASE UVRB; MULTIDOMAIN PROTEIN	HYDROLASE UVRB; MULTIDOMAIN PROTEIN	GENE REGULATION APO PROTEIN	TRANSLATION YEAST INITIATION	FACTOR 4A, EIF4A; HELICASE, INITIATION FACTOR 4A, DEAD-BOX	PROTEIN	TRANSLATION EUKARYOTIC INITIATION FACTOR 44; IF4A,	HELICASE, DEAD-BOX PROTEIN	TRANSLATION EUKARYOTIC	INITIATION FACTOR 44; IF44, HELICASE, DEAD-BOX PROTEIN		TRANSPORT PROTEIN TC4; GTPASE,	NUCLEAR TRANSPORT, TRANSPORT PROTEIN	TRANSPORT PROTEIN TC4; GTPASE,	NUCLEAR TRANSPORT, TRANSPORT PROTEIN
Compound		ZINC FINGER PROTEIN GL11; CHAIN: A; DNA; CHAIN: C, D;	DNA NUCLEOTIDE EXCISION REPAIR ENZYME UVRB; CHAIN: A:		EXCINUCLEASE ABC SUBUNIT B; CHAIN: A;	EXCINUCLEASE ABC SUBUNIT B; CHAIN: A;	EXCINUCLEASE UVRABC COMPONENT UVRB; CHAIN: A;	EUKARYOTIC INITIATION	FACTOR 4A; CHAIN: A;		YEAST INITIATION FACTOR 4A; CHAIN: A, B;		YEAST INITIATION FACTOR	4A; CHAIN: A, B;		GTP-BINDING PROTEIN RAN;	CHAIN: A, B;	GTP-BINDING PROTEIN RAN;	CHAIN: A, B;
SEQFOL D score										•								113.24	
PMF score		0.11	0.18		0.46	0.39	0.24	0.55			-0.14		0.43			1.00			
Verify score		-0.09	0.13		0.05	-0.11	-0.27	0.23			60.0		90.0			0.35			
Psi Blast		1.6e-34	1.6e-13		1.6e-13	1.4e-07	6.4e-17	9.6e-39			4.8e-43		3.2e-91			7.5e-64		7.5e-64	
END AA		490	029		630	662	859	029			321		029	·		211		217	
STAR T AA		344	470		470	538	457	508			105		313			14		15	
CHAI N ID		¥	¥		¥	¥	¥	Ą			¥		В			¥		Ą	
PDB ID		2gli	1c4o		1d2m	1d2m	1d9x	1fuk			lfuu		nnJI			1byu		1byu	
SEQ NO:		1860	1861		1861	1861	1861	1861			1861		1861			1862		1862	

PDB annotation	TRANSPORT PROTEIN TC4; GTPASE,	NUCLEAR TRANSPORT, TRANSPORT PROTEIN	TRANSPORT PROTEIN TC4; GTPASE, NUCLEAR TRANSPORT, TRANSPORT PROTEIN	SIGNALING PROTEIN GTP-BINDING	PROTEINS, PROTEIN-PROTEIN COMPLEX, EFFECTORS		SIGNALING PROTEIN GTP-BINDING	PROTEINS, PROTEIN-PROTEIN COMPLEX, EFFECTORS		SIGNAT ING PROTEIN G PROTEIN	GTP HYDROLYSIS, KINETIC	CRYSTALLOGRAPHY, 2 SIGNALING PROTEIN	SIGNALING PROTEIN G PROTEIN.	GTP HYDROL YSIS, KINETIC	CRYSTALLOGRAPHY, 2 SIGNALING PROTEIN	SIGNALING PROTEIN PROTEIN-	PROTEIN COMPLEX,	ANTIPARALLEL COILED-COIL	ENDOCYTOSIS/EXOCYTOSIS G-	PROTEIN, GTPASE, RAB6,	VESICULAR TRAFFICKING	ENDOCYTOSIS/EXOCYTOSIS G	PROTEIN, VESICULAR TRAFFIC,	GTP HYDROLYSIS, YPT/RAB 2 PROTEIN, ENDOCYTOSIS,
Coumpound	G PROTEIN RAN;		GTP-BINDING PROTEIN RAN; T CHAIN: A, B; N	IN RAP-		SERINE/THREONINE PROTEIN KINASE CHAIN: B;	IN RAP-	1A; CHAIN: A; PROTO-	EONINE PROTEIN	POTEIN		_	TRANSFORMING PROTEIN S			HIS-TAGGED TRANSFORMING S	181); CHAIN:		RAB6 GTPASE; CHAIN: A; E	ď		ING PROTEIN YPT51;	CHAIN: A;	5 6
SEQFOL D score			109.68				102.67						98.76			95.76								_
PMF	1.00			1.00						1 00	3								1.00			1.00		
Verify	0.44			0.51						0.65	}								0.56			89.0		
Psi Blast	1.3e-65		1.3e-65	8e-65			8e-65			6 10-61	5		6.46-64			3.2e-58			3.2e-62			9.6e-60		
END	211		215	181			181			183	}		182			182			179			179		
STAR T AA	6		6	16			17			17	:		17			19			81			<u>∞</u>		
CEAI	В		В	٧			A	. — 		\	:		V			4			¥			∢		
BOS CI	lbyu		1byu	lcly			lcly			10,10			lete	•		lcxz			145c			leko		
SEQ	NO:		1862	1862			1862			1862			1862			1862			1862	_		1862		

	PDB CHAI	I STAR	END	Psi Blast	Verify score	PMF score	SEQFOL D score	Coumpound	PDB annotation
1									HYDROI ASE
jē.	4	17	187	3e-60			113.50	RAN; CHAIN: A, C; IMPORTIN BETA SUBUNIT; CHAIN: B, D;	SMALL GTPASE KARYOPHERIN BETA, P95 SMALL GTPASE, NICT PAR TRANSPORT RECEPTOR
1ibr	4	81	981	3e-60	0.80	1.00		RAN; CHAIN: A, C; IMPORTIN BETA SUBUNIT; CHAIN: B, D;	SMALL GTPASE KARYOPHERIN BETA, P95 SMALL GTPASE, NUCLEAR TRANSPORT RECEPTOR
1kao		17	182	9.6e-59			98.96	RAP2A; CHAIN: NULL;	GTP-BINDING PROTEIN GTP- BINDING PROTEIN, SMALL G PROTEIN, RAP2, GDP, RAS
Ē	ပ	15	861	1.4e-60			114.45	RAN; CHAIN: A, C; NUCLEAR PORE COMPLEX PROTEIN NUP358; CHAIN: B, D;	COMPLEX (SMÁLL GTPASE/NUCLEAR PROTEIN) COMPLEX (SMÁLL GTPASE/NUCLEAR PROTEIN), SMÁLL GTPASE, 2 NUCLEAR TRANSPORT
dr!	ပ	16	193	1.4e-60	0.45	1.00		RAN; CHAIN: A, C; NUCLEAR PORE COMPLEX PROTEIN NUP358; CHAIN: B, D;	COMPLEX (SMALL GTPASE/NUCLEAR PROTEIN) COMPLEX (SMALL GTPASE/NUCLEAR PROTEIN), SMALL GTPASE, 2 NUCLEAR TRANSPORT
1tx4	a	16	180	4.8e-55			87.88	PSO-RHOGAP; CHAIN: A; TRANSFORMING PROTEIN RHOA; CHAIN: B;	COMPLEX(GTPASE ACTIVATIVPROTO-ONCOGENE) GTPASE-ACTIVATING PROTEIN RHOGAP; COMPLEX (GTPASE ACTIVATION/PROTO-ONCOGENE), GTPASE, 2 TRANSITION STATE, GAP
ğ	A A	12	187	4.8e-69	,		130,15	RAB-3A; CHAIN: B; RABPHILIN-3A; CHAIN: B;	COMPLEX (GTP. BINDING/EFFECTOR) RAS-RELATED PROTEIN RAB3A; COMPLEX (GTP- BINDING/EFFECTOR), G PROTEIN, EFFECTOR, RABCDR, 2 SYNAPTIC EXOCYTOSIS, RAB PROTEIN.

PDB annotation	RAB3A, RABPHILIN	COMPLEX (GTP- BINDING/EFFECTOR) RAS-RELATED	PROTEIN RAB3A; COMPLEX (GTP-	BINDING/EFFECTOR), G PROTEIN,	EFFECTOR, RABCDR, 2 SYNAPTIC	EXOCTIONS, KAB PROTEIN,	Target of the Contraction	HYDROLASE G PROTEIN, VESICULAR TRAFFICKING, GTP	HYDROLYSIS, RAB 2 PROTEIN,	NEUROTRANSMITTER RELEASE,	HYDROLASE	HYDROLASE G PROTEIN,	VESICULAR TRAFFICKING, GIP	ATUROLISIS, KAB 2 PROJEIN,	NEUROLKANSMILLER KELEASE, HYDROLASE	COMPLEX (NUCLEAR	PROTEIN KINA) COMPLEA	(NUCLEAR PROTEIN/RNA), RNA, SNRNP RIRONICI FOPROTFIN	RNA-RINDING PROTEIN/RNA TRA	PRE-MRNA SPITCING	REGULATION RNP DOMAIN, RNA	COMPLEX	GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA			GENE REGULATION/RNA POLY(A)
Coumpound		RAB-3A; CHAIN: A; RABPHILIN-3A; CHAIN: B;						RAB3A; CHAIN: A;				RAB3A; CHAIN: A;				U2 RNA HAIRPIN IV; CHAIN: Q,	K; 02 A; CHAIN: A, C; 02 B;	CHAIN: B, D;	SX1-1 ETHAL PROTEIN: CHAIN:	A B. RNA (%.	R/P*GP*UP*UP*UP*UP*	UP*UP*UP*UP*U)- CHAIN: P, Q;	POLYDENYLATE BINDING	PROTEIN I; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP*A)-37; CHAIN: M, N,	O, P, Q, R, S, T;	POLYDENYLATE BINDING
SEQFOL D score												145.01																	
PMF score		1.00						00.1								0.52			0.43	?			0.57						0.43
Verify		0.65					3	0.78								0.40			80.0	3			0.47						0.54
Psi Blast		4.8e-69						8e-70				8e-70				7.5e-07			3e-07				7.5e-07						7.5e-07
END AA		185					1	787				182				202			207	- -			205						199
STAR T AA		14						EI				13				135			138	}			138						136
CHAI N ID		4						∢				4				В			A	:			4						T.
PDB ID		1zbd						Srab				3rab				1a9n	-		1b7f	:			lcvj						lcvj
SEQ ID NO:		1862						1862				1862				1864			1864				1864						1864

		_C		~ ⁽⁵⁾			
PDB annotation	BINDING PROTEIN I, PABP I; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	STRUCTURAL PROTEIN PROTEIN C23; RNP, RBD, RRM, RNA BINDING DOMAIN, NUCLEOLUS		RIBONUCLEOPROTEIN PTB, PTB- C198, HETEROGENEOUS NUCLEAR POLYPYRIMIDINE TRACT BINDING PROTEIN, RNP, RNA, SPICING, 2 TRANSLATION	NUCLEAR PROTEIN UI SNRNP A PROTEIN; RNA BINDING DOMAIN, NUCLEAR PROTEIN	COMPLEX (RIBONUCLEOPROTEIN/DNA) HNRNP A1, UP1; COMPLEX (RIBONUCLEOPROTEIN/DNA), HETEROGENEOUS NUCLEAR 2 RIBONUCLEOPROTEIN A1	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2
Coumpound	PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5- R(*AP*AP*AP*AP*AP* AP*AP*AP*A):3'); CHAIN: M, N, O, P, Q, R, S, T;	NUCLEOLIN RBD1; CHAIN: A;	RIBONUCLEOPROTEIN PROTEIN FROM UI SMALL NUCLEAR RIBONUCLEOPROTEIN (SNRNP UI) INRC 3 (N-TERMINAL FRAGMENT, RESIDUES 1 - 95) MUTANT WITH GLN 85 INRC 4 REPLACED BY CYS (Q85C) INRC 5	POLYPYRIMIDINE TRACT- BINDING PROTEIN; CHAIN: A;	UI SMALL NUCLEAR RIBONUCLEOPROTEIN A; CHAIN: NULL;	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1; CHAIN: A; 12-NUCLEOTIDE SINGLE-STRANDED TELOMETRIC DNA; CHAIN: B;	SEX-LETHAL; CHAIN: A, B, C;
SEQFOL D score							
PMF		0.21	0.99	0.15	0.43	0.95	0.48
Verify score		0.48	0.13	0.20	0.05	0.32	0.38
Psi Blast		6e-07	1c-08	66-07	6e-07	7.5e-07	3e-07
END		196	195	196	195	196	207
STAR T AA		136	135	88	136	138	138
CHAI		∢	æ	A		Ą	¥
PDB CI		167	Inc	Iqm9	2u1a	2up1	3sxl
SEQ EQ	S. C.	1864	1864	1864	1864	1864	1864

PDB annotation	SPLICING INHIBITOR, SEX 3 TRANSLATIONAL INHIBITOR, SEX 3 DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION		COMPLEX (TRANSCRIPTION FACTOR/DNA) COMPLEX (TRANSCRIPTION FACTOR, 2 DNA-BINDING PROTEIN	COMPLEX (TRANSCRIPTION FACTOR/DNA) COMPLEX (TRANSCRIPTION FACTOR/DNA), TRANSCRIPTION FACTOR, 2 DNA- BINDING PROTEIN	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH 3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (RI-ANG), HYDROLASE 2 MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH
Coumpound	,	LIGASE(SYNTHETASE) SERYL- TRNA SYNTHETASE (E.C.6.1.1.11) (SERINE-TRNA LIGASE) 1SES 3 COMPLEXED WITH SERYL-HYDROXAMATE- AMP 1SES 4	T PROTEIN; CHAIN: A, B; DNA; CHAIN: C, D;	T PROTEIN; CHAIN: A, B; DNA; CHAIN: C, D;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;	RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B, E;
SEQFOL D score					·	
PMF		0.01	09.0	0.47	0.43	0.60
Verify score		-0.21	-0.88	-0.90	0:30	0.15
Psi Blast		3.2e-05	1.6e-21	1.2e-37	80-08	1.4e-08
END		542	94	96	350	338
STAR T AA		439	1	_	183	209
CHAI N ID		A	V	4	4	Ą
PDB ID		Ises	1xbr	1xbr	1a4y	1a4y
SEQ ID NO:		1865	1867	1867	1870	1870

PDB annotation	3 REPEATS	COMPLEX (INHIBITOR/NUCLEASE) COMPLEX (INHIBITOR/NUCLEASE), COMPLEX (INHIBITOR/NUCLEASE),	MOLECULAR RECOGNITION, EPITOPE MAPPING, LEUCINE-RICH	3 REPEATS	CELL ADHESION LEUCINE RICH REPEAT, CALCIUM BINDING, CELL ADHESION	CELL ADHESION LEUCINE RICH REPEAT CAI CHIM BINDING CELL	ADHESION	RNA BINDING PROTEIN TAP (NFX1);	RIBONUCLEOPROTEIN (RNP, RBD	REPEAT 2 (LRR)	RNA BINDING PROTEIN TAP (NFXI);	RIBONUCLEOPROTEIN (RNP, RBD	OR RRM) AND LEUCINE-RICH-	REPEAT 2 (LRR)	LIGASE CYCLIN A/CDK2-	ASSOCIATED PROTEIN P45; CYCLIN	A/CDK2-ASSOCIATED PROTEIN P19;	SKP1, SKP2, F-BOX, LRR, LEUCINE-	RICH REPEAT, SCF, UBIQUITIN, 2	E3, UBIQUITIN PROTEIN LIGASE	LIGASE CYCLIN A/CDK2-	ASSOCIATED P45; CYCLIN A/CDK2-	ASSOCIATED P19; SKP1, SKP2, F-	BOX, LRRS, LEUCINE-RICH	REPEATS, SCF, 2 UBIQUITIN, E3,	UBIQUITIN PROTEIN LIGASE	TRANSCRIPTION RNAIP; RANGAP;
Coumpound		RIBONUCLEASE INHIBITOR; CHAIN: A, D; ANGIOGENIN; CHAIN: B. E.			INTERNALIN B; CHAIN: A;	INTERNALIN B; CHAIN: A;		NUCLEAR RNA EXPORT	FACTOR 1; CHAIN: A, B;		NUCLEAR RNA EXPORT	FACTOR 1; CHAIN: A, B;			SKP2; CHAIN: A, C, E, G, I, K, M,	O; SKP1; CHAIN: B, D, F, H, J, L,	ja ž				SKP2; CHAIN: A, C; SKP1;	CHAIN: B, D;					GTPASE-ACTIVATING
SEQFOL D score																						_					
PMF score		0.25			0.12	0.25		0.03			0.00				0.51						0.72						0.27
Verify		0.14			0.40	-0.10		0.03			-0.01				0.45						0.22						0.09
Psi Blast		3e-06			8e-07	0.00096		1.1e-06			1.1e-06				1.1e-46						4.8e-36						0.00064
END		373			333	354		306			306				349						349						347
STAR T AA		209			961	222		193			193				128						128						248
CHAI N ID		∢			A	٧		4			В				A						V						A
PDB ID		la4y			90P1	140b		1fo1			1fo1			_	1fqv						2831						lyrg
SEQ No.		1870			1870	1870		1870			1870				1870						1870						1870

PDB annotation	GTPASE-ACTIVATING PROTEIN FOR SPI1, GTPASE-ACTIVATING PROTEIN, GAP, RNAIP, RANGAP, LRR, LEUCINE- 2 RICH REPEAT PROTEIN, TWINNING, HEMIHEDRAL TWINNING, MEROHEDRAL TWINNING,	ACETYLATION RNASE INHIBITOR, RIBONUCLEASE/ANGIOGENIN INHIBITOR ACETYLATION, LEUCINE-RICH REPEATS	TRANSFERASE GRK-2, BETA- ADRENERGIC RECEPTOR KINASE 1, BETA-ARK PLECKSTRIN HOMOLOGY DOMAIN, PH DOMAIN, SIGNAL TRANSDUCTION, 2 G- BETA-GAMMA BINDING DOMAIN, BETA-ADRENERGIC RECEPTOR 3 KINASE, BETA-ARK, G-PROTEIN COUPLED RECEPTOR KINASE (GRK- 2)	SIGNAL TRANSDUCTION PROTEIN	CYTOSKELETON		MEMBRANE PROTEIN CRYSTAL STRUCTURE, MEMBRANE, FERM DOMAIN, TAIL DOMAIN
Coumpound	PROTEIN RNA1_SCHPO; CHAIN: A, B;	RIBONUCLEASE INHIBITOR; CHAIN: NULL;	G-PROTEIN COUPLED RECEPTOR KINASE 2; CHAIN: NULL;	BETA-SPECTRIN; 1BTN 4 CHAIN: NULL; 1BTN 5	BETA-SPECTRIN; 1DRO 6 CHAIN: NULL; 1DRO 7	SIGNAL TRANSDUCTION PROTEIN DYNAMIN (PLECKSTRIN HOMOLOGY DOMAIN) (DYNPH) IDYN 3	MOESIN; CHAIN: A, B; MOESIN; CHAIN: C, D;
SEQFOL D score							
PMF score		0.71	-0.03	96.0	0.21	0.11	0.53
Verify		-0.03	80.00	0.19	0.22	0.13	0.05
Psi Blast		3.2e-09	4.8e-10	8e-12	1.5e-05	4.8e-10	1.6e-58
END AA		338	291	271	264	271	464
STAR T AA		209	168	172	182	186	149
CECAI N ID						¥	¥
PDB LD		2bnh	1bak	1btn	1dro	1dyn	lefi
SEQ NO:		1870	1871	1871	1871	1871	1871

PDB annotation	SIGNALING PROTEIN DAPPI, PHISH, BAM32; PLECKSTRIN, 3-PHOSPHOINOSITIDES, INOSITOL TETRAKISPHOSPHATE 2 SIGNAL TRANSDUCTION PROTEIN, ADAPTOR PROTEIN	SIGNALING PROTEIN DAPPI, PHISH, BAM32; PLECKSTRIN, 3-PHOSPHOINOSITIDES, INOSITOL TETRAKISPHOSPHATE 2 SIGNAL TRANSDUCTION PROTEIN, ADAPTOR PROTEIN	SIGNALING PROTEIN ARFI GUANINE NUCLEOTIDE EXCHANGE FACTOR AND PH DOMAIN	CELL ADHESION 3 SUBDOMAINS, CYTOSKELETON, CELL ADHESION		OXIDOREDUCTASE IPMDH, IMDH; OXIDOREDUCTASE, DECARBOXYLATING DEHYDROGENASE, LEUCINE 2 BIOSYNTHESIS	OXIDOREDUCTASE IPMDH, IMDH; OXIDOREDUCTASE,
Coumpound	DUAL ADAPTOR OF PHOSPHOTYROSINE AND 3- CHAIN: A;	DUAL ADAPTOR OF PHOSPHOTYROSINE AND 3- CHAIN: A;	GRP1; CHAIN: A;	RADIXIN; CHAIN: A;	PHOSPHORYLATION PLECKSTRIN (N-TERMINAL PLECKSTRIN HOMOLOGY DOMAIN) MUTANT 1PLS 3 WITH LEU GLU (HIS)6 ADDED TO THE C TERMINUS 1PLS 4 (INS(G105-LEHHHHHH)) (NMR,	3-ISOPROPYLMALATE DEHYDROGENASE; CHAIN: A, B;	3-ISOPROPYLMALATE DEHYDROGENASE; CHAIN: A,
SEQFOL D score						69.11	
PMF score	0.80	0.69	0.65	0.01	60:0		0.54
Verify score	0.31	0.14	0.49	-0.01	0.14		0.03
Psi Blast	3.2e-17	3.2e-17	4.8e-18	3.2e-58	1.4e-14	0	0
END AA	269	269	272	464	285	390	387
STAR T AA	170	170	172	134	691	1 5	8
CHAI N ID	V	∢	V	A		₹	A
PDB ID	lfao	1fb8	1fgy	1gc7	Ipís	1a05	1a05
SEQ ID NO:	1871	1871	1871	1871	1871	1872	1872

					-			-				DH			IN IN		DH;					DH;		-0.41	}	DH;
tion		DECARBOXYLATING DEHYDROGENASE, LEUCINE 2 BIOSYNTHESIS		H;		7 S		Ή̈́	IAD(A)		24 Š	OXIDOREDUCTASE IPMDH, IMDH;		Ą	DEPENDANT ENZYME, 2 LEUCINE	WAY	OXIDOREDUCTASE IPMDH, IMDH;	!	₽.	DEPENDANT ENZYME, 2 LEUCINE	WAY	OXIDOREDUCTASE IPMDH, IMDH;	71.01	DER I DROGENASE, LEOCINE BIOSVATTETIC PATTIWAY 2 NAD		OXIDOREDUCTASE IPMDH, IMDH;
PDB annotation		LATING NASE, LI IS	TASE	DECARBOXYLASE, IDH;	DP,	FHUSPHUKTLATION, 2 GLYOXYLATE BYPASS	TASE	DECARBOXYLASE, IDH;	OXIDOREDUCTASE (NAD(A)-	DP,	PHOSPHORYLATION, 2 GLYOXYLATE BYPASS	TASE IF	TASE,	DEHYDROGENASE, NAD-	ENZYM	BIOSYNTHETIC PATHWAY	TASE IF	TASE,	DEHYDROGENASE, NAD	ENZYMI	BIOSYNTHETIC PATHWAY	TASE IP	ANDE,	DER I DROGENASE, LEOCHNE BIOSYNTHETIC PATENVAY >	DEPENDANT ENZYME	TASE IP
æ	ļ	DECARBOXYLATING DEHYDROGENASE, L BIOSYNTHESIS	OXIDOREDUCTASE OXALOSUCCINATE	RBOXY	CHOH(D)), NADP,	XYLAT	OXIDOREDUCTASE	RBOXY	OREDUC	CHOH(D)), NADP,	PHORYI	OREDUC	OXIDOREDUCTASE,	DROGE	NDANT	YNTHET	OREDUC	OXIDOREDUCTASE,	DROGE	NDANT	YATET	OREDUC	OXIDOREDUCTASE,	THET	NDANT	OXIDOREDUCTASE
		DECA DEHN BIOS'	OXIO OXA	DECA	HOH S	GLYC	OIXO	DECA	OXO	CHO	PHOS	OXID	OXID	DEHY	DEPE	BIOS	OXID	0 X 0	DEH	DEPE	BIOS	OX O	אר איני איני	PION	DEPE	OXID
			AIR:				. T. A.						AIN: A,					AIN: A,					Ally: A,			
Coumpound		-	ISOCITRATE DEHYDROGENASE: CHAIN:				ISOCITRATE DELYDBOGENASE: CHAIN:	10F, C11				ALATE	DEHYDROGENASE; CHAIN: A,				ALATE	DEHYDROGENASE; CHAIN: A,				ALATE	DEH I DROGENASE; CHAIIN: A, D.			ALATE
Coun			RATE ROGEN				RATE	NOOF!				3-ISOPROPYLMALATE	ROGEN				3-ISOPROPYLMALATE	ROGEN				3-ISOPROPYLMALATE	NOGEN.			3-ISOPROPYLMALATE
		B;	ISOCITRATE DEHYDROGI	NULL;			ISOCITRATE	NULL;	•			3-ISOP	DEHYD	ë.			3-ISOPI	DEHYD	ά̈́			3-ISOPI	טבה זיים ק	Ġ		3-ISOPF
SEQFOL D score							62.58					63.70										60.42				
<u> </u>							62					63										<u>8</u>			-	
PMF			0.60				ļ					-					0.41									0.65
Verify			0.01														0.04									-0.04
Psi Blast																										
			0		-		0	-				0				-	0				_	•				0
END			387				387					382					389					382				389
STAR			s				7															_				_
CHAI												4					Ą					∢				Ą
208 U			1ai2				lai2					1cm7					1cm7					lcnz				1cnz
SEQ EQ	NO:		1872				1872					1872					1872					872				1872

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PDB annotation	DEHYDROGENASE, LEUCINE BIOSYNTHETIC PATHWAY, 2 NAD- DEPENDANT ENZYME	OXIDOREDUCTASE IPMDH; 1IDM 7 CHIMERA 1IDM 20	OXIDOREDUCTASE IPMDH; 1IDM 7 CHIMERA 11DM 20	OXIDOREDUCTASE IPMDH, IMDH, IXAC 10 OXIDOREDUCTASE, CHIMERA IXAC 21	OXIDOREDUCTASE IPMDH, IMDH; IXAC 10 OXIDOREDUCTASE, CHIMERA IXAC 21	OXIDOREDUCTASE OXIDOREDUCTASE, 3- ISOPROPYLMALATE DEHYDROGENASE, LEUCINE 2 BIOSYNTHESIS, MODERATE THERMOPHILE	OXIDOREDUCTASE OXIDOREDUCTASE, 3- ISOPROPYLMALATE DEHYDROGENASE, LEUCINE 2 BIOS YNTHESIS, MODERATE THERMOPHILE	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT	COMPLEX (TRANSCRIPTION
Coumpound	B;	3-ISOPROPYLMALATE DEHYDROGENASE; 11DM 5 CHAIN: NULL; 11DM 6	3-ISOPROPYLMALATE DEHYDROGENASE; 11DM 5 CHAIN: NULL; 11DM 6	3-ISOPROPYLMALATE DEHYDROGENASE ZTZM6T S82R; IXAC 8 CHAIN: NULL; IXAC 9	3-ISOPROPYLMALATE DEHYDROGENASE 2T2M6T S82R; IXAC 8 CHAIN: NULL; IXAC 9	3-ISOPROPYLMALATE DEHYDROGENASE; CHAIN: A, B;	3-ISOPROPYLMALATE DEHYDROGENASE; CHAIN: A, B;	TUMOR SUPPRESSOR P16NK4A; CHAIN: NULL;	GA BINDING PROTEIN ALPHA;
SEQFOL D score		54.18		50.68			68.62		
PMF			0.42		0.46	0.57		0.51	0.22
Verify			0.06		0.04	-0.03		0.44	0.11
Psi Blast		4.8e-95	4.8e-95	1.6e-96	1.6e-96	0	0	1.6e-23	4.8e-36
END AA		366	387	366	387	387	388	125	156
STAR T AA		42	6	42	6	9	9	01	10
CHAI N ID						A	4		В
PDB ID		1idm	lidm	lxac	lxac	2ayq	2ayq	1a5e	lawc
SEQ ID NO:		1872	1872	1872	1872	1872	1872	1873	1873

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PDB annotation	REGULATION/DNA) GABPALPHA; GABPBETA1; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	COMPLEX (TRANSCRIPTION REGULATION/DNA) GABPALPHA; GABPBETAI; COMPLEX (TRANSCRIPTION REGULATION/DNA), DNA-BINDING, 2 NUCLEAR PROTEIN, ETS DOMAIN, ANKYRIN REPEATS, TRANSCRIPTION 3 FACTOR	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	COMPLEX (KINASE/ANTI- ONCOGENE) CDK6; PIGINK4A, MTS1; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, MULTIPLE TUMOR SUPPRESSOR, 3 MTS1, COMPLEX (KINASE/ANTI- ONCOGENE) HEADER	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT KINASE, CELL CYCLE 2 CONTROL,
Coumpound	CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	GA BINDING PROTEIN ALPHA; CHAIN: A; GA BINDING PROTEIN BETA 1; CHAIN: B; DNA; CHAIN: D, E;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	P19INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; MULTIPLE TUMOR SUPPRESSOR; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;
SEQFOL D score	·					
PMF score		1:00	0.11	0.96	0.62	0.15
Verify score		0.43	0.05	0.22	0.52	0.18
Psi Blast		6.4e-33	3.2e-32	1.1e-23	8e-24	8e-33
END AA		125	157	128	125	157
STAR T AA		2	13	co.	10	13
CHAI N ID		В			В	В
PDB ID		lawc	1bd8	15d8	1617	1blx
SEQ ID NO:		1873	1873	1873	1873	1873

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PDB annotation	ALPHA/BETA, COMPLEX (INHIBITOR PROTEIN/KINASE)	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR	PROTEIN, CYCLIN-DEPENDENT	AI PHA/RETA, COMPIEX	(INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18-	INK4C; CELL CYCLE INHIBITOR,	PISINK4C, TUMOR, SUPPRESSOR,	CICLIN- Z DEFENDENT KINASE, HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18-	INK4C; CELL CYCLE INHIBITOR,	P18INK4C, TUMOR, SUPPRESSOR,	CYCLIN- 2 DEPENDENT KINASE,	HORMONE/GROWTH FACTOR	SIGNALING PROTEIN HELIX-TURN-	HELIX, ANKYRIN REPEAT	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE	INHIBITOR, P18-INK4C(INK6),	ANKYRIN REPEAT, 2 CDK 4/6	NHIBITOR	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE	INHIBITOR, P18-INK4C(INK6),	ANKYRIN REPEAT, 2 CDK 4/6	INHIBITOR	ANK-REPEAT MYOTROPHIN,	ACETYLATION, NMR, ANK-REPEAT	COMPLEX (TRANSCRIPTION	REG/ANK REPEAT) COMPLEX
Coumpound		CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN:	B;	•		CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A;			CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A;				CYCLIN-DEPENDENT KINASE	4 INHIBITOR B; CHAIN: A;	CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;				CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;				MYOTROPHIN; CHAIN: NULL		NF-KAPPA-B P65; CHAIN: A, C;	NF-KAPPA-B P50; CHAIN: B, D;
SEQFOL D score																														
PMF score		96.0				0.71				0.55			٠		0.49		09.0					0.74					0.64		0.45	
Verify score		0.42				0.16				0.15					0.05		0.23					0.14					0.21		0.02	
Psi Blast		1.6e-22			•	6.4e-34				4.8e-27					3.2e-24		6.4e-34			•		1.6e-26					1.3e-24		3.2e-40	
END AA		128				153				130					181		153					129					121		212	
STAR T AA		E.				10				2					01		10					2					11		4	
CHAI N ID		В				٧				¥					A		V					¥							ш	
PDB ID		1blx				6nq1				1bu9					s6p1		વપાા					1 ihb					lmyo		lnfi	
SEQ ID NO:		1873				1873				1873					1873		1873					1873					1873		1873	

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PDB annotation	(TRANSCRIPTION REGULATION/ANK REPEAT), ANKYRIN 2 REPEAT HELIX	ANTI-ONCOGENE CELL CYCLE, ANTI-ONCOGENE, REPEAT, ANK REPEAT	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	TUMOR SUPPRESSOR TUMOR SUPPRESSOR, CDK4/6 INHIBITOR, ANKYRIN MOTIF	COMPLEX (KINASE/ANTI- ONCOGENE) CDK6; P16NK4A, MTS1; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, NK4, CELL CYCLE, MULTIPLE TUMOR SUPPRESSOR, 3 MTS1, COMPLEX (KINASE/ANTI- ONCOGENE) HEADER	COMPLEX (KINASE/ANTI- ONCOGENE) CDK6; P16INK4A, MTS1; CYCLIN DEPENDENT KINASE, CYCLIN DEPENDENT KINASE INHIBITORY 2 PROTEIN, CDK, INK4, CELL CYCLE, MULTIPLE TUMOR SUPPRESSOR, 3 MTS1, COMPLEX (KINASE/ANTI- ONCOGENE) HEADER	COMPLEX (INHIBITOR PROTEIN/KINASE) INHIBITOR PROTEIN, CYCLIN-DEPENDENT
Coumpound	I-KAPPA-B-ALPHA; CHAIN: E, F;	TUMOR SUPPRESSOR P16INK4A; CHAIN: NULL;	PISINK4D CDK4/6 INHIBITOR; CHAIN: NULL;	PI9INK4D CDK4/6 INHIBITOR; CHAIN: NULL;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; MULTIPLE TUMOR SUPPRESSOR; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; MULTIPLE TUMOR SUPPRESSOR; CHAIN: B;	CYCLIN-DEPENDENT KINASE 6; CHAIN: A; P19INK4D; CHAIN: B;
SEQFOL D score						·	
PMF		0.81	0.31	0.01	0.68	0.00	0.31
Verify		0.03	0.03	-0.04	0.18	0.15	60.0
Psi Blast		3.2e-16	3.2e-27	1.4e-15	3.2e-17	1.46-17	3.2e-25
END		120	153	120	120	153	153
STAR T AA		10	13	2	01	52	13
CHAI N ID					m	æ	В
PDB U		1a5e	1bd8	15d8	1bi7	1bi7	1blx
SEQ No:		1874	1874	1874	1874	1874	1874

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PDB annotation	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX (INHIBITOR-PROTEIN/KINASE)	COMPLEX (INHIBITOR	PROTEIN, CYCLIN-DEPENDENT	KINASE, CELL CYCLE 2 CONTROL, ALPHA/BETA, COMPLEX	(INHIBITOR PROTEIN/KINASE)	HORMONE/GROWTH FACTOR P18-	NK4C; CELL CYCLE INHIBITOR,	P18INK4C, TUMOR, SUPPRESSOR,	CYCLIN- 2 DEPENDENT KINASE,	HURIMOINE/GROWIN THE FACTOR	HORMONE/GROWIH FACTOR P18-	PI8INK4C, TUMOR, SUPPRESSOR.	CYCLIN- 2 DEPENDENT KINASE,	HORMONE/GROWTH FACTOR	HORMONE/GROWTH FACTOR P18-	INK4C; CELL CYCLE INHIBITOR,	P18INK4C, TUMOR, SUPPRESSOR,	CYCLIN- 2 DEPENDENT KINASE,	HORMONE/GROWTH FACTOR	SIGNALING PROTEIN HELIX-TURN-	HELIX, ANKYRIN REPEAT	METAL BINDING PROTEIN ZINC-	BINDING MODULE, ANKYRIN	REPEATS, METAL BINDING	PROTEIN	CELL CYCLE INHIBITOR P18-	INK4C(INK6); CELL CYCLE	INHIBITOR, PI8-INK4C(INK6),	ANK YKIN KEPEAT, 2 CDK 4/6
Coumpound		CYCLIN-DEPENDENT KINASE	B;			CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A;			מסיו מאו שו שמשם ומ זסאס	CYCLIN-DEPENDENT KINASE 6 INHIBITOR - CHAIN - A	5			CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A;				CYCLIN-DEPENDENT KINASE	4 INHIBITOR B; CHAIN: A;	PYK2-ASSOCIATED PROTEIN	BETA; CHAIN: A;			CYCLIN-DEPENDENT KINASE	6 INHIBITOR; CHAIN: A, B;		
SEQFOL D score																													
PMF		-0.09				0.23	,			:	0.11				50.0			_		0.33		69.0				0.71			
Verify score		80.0				-0.15				300	0.04				0.01					0.28		0.08				0.40			
Psi Blast		1.6e-14				1.3e-29				0, 20	1.36-18				6.4e-28					1.6e-17		1.5e-12				4.8c-18			
END AA		120				158				2	5	_			212					120		122				124			
STAR T AA		2				13				,	7				54					01		13				2			
CHAI N ID		В				¥		_		•	∢				∀					∀		¥				∢			
PDB ID		지91				1bu9				1	anor I				1bu9					1d9s		1dcq				1ihb			
SEQ ID NO:		1874				1874				1074	18/4				1874					1874		1874				1874			

PDB annotation	INHIBITOR	CELL CYCLE INHIBITOR P18- INK4C(INK6); CELL CYCLE INHIBITOR, P18-INK4C(INK6), ANKYRIN REPEAT, 2 CDK 4/6 INHIBITOR	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	ANK-REPEAT MYOTROPHIN, ACETYLATION, NMR, ANK-REPEAT	COMPLEX (ANTI- ONCOGENE/ANKYRIN REPEATS) P53BP2; ANKYRIN REPEATS, SH3, P53, TUMOR SUPPRESSOR, MULTIGENE 2 FAMILY, NUCLEAR PROTEIN, PHOSPHORYLATION, DISASEA MULTATION, POI YMORPHISM, COMPI EX (ANTI-	ONCOGENE/ANKYRIN REPEATS)	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA), ZINC FINGER, DNA-BINDING PROTEIN	COMPLEX (ZINC FINGER/DNA) COMPLEX (ZINC FINGER/DNA),
Coumpound		CYCLIN-DEPENDENT KINASE 6 INHIBITOR; CHAIN: A, B;	MYOTROPHIN; CHAIN: NULL	MYOTROPHIN; CHAIN: NULL	P53; CHAIN: A; 53BP2; CHAIN: B;		QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING STTE: CHAIN: B. C:	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	QGSR ZINC FINGER PEPTIDE; CHAIN: A; DUPLEX
SEQFOL D score									72.03	
PMF score		0.27	0.24	0.23	0.01		0.66	0.00		60.0
Verify score		-0.09	-0.17	0.30	-0.03		0.12	0.04		-0.14
Psi Blast		3.2e-27	1.1e-21	1.1e-21	4.8e-20		9.66-26	7.5e-29	7.5e-29	1.5e-39
END		211	138	159			335	336	365	502
STAR TAA		3 5	11	73	09		239	243	283	395
CHAI N ID		¥			В		A	Ą	¥	A
808 U		11hb	Imyo	1myo	lycs		lalh	laIfi	lalh	laih
SEQ NO.		1874	1874	1874	1874		1877	1877	1877	1877

PDB	CHAI	STAR	END	Psi Blast	Verify	PMF	SEQFOL	Coumpound	PDB annotation
		I AA	¥		score	score	D score		
i l								OLIGONUCLEOTIDE BINDING SITE; CHAIN: B, C;	ZINC FINGER, DNA-BINDING PROTEIN
lmey	၁	161	263	4.8e-42	-0.16	90.0		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
								PROTEIN CHAIN: C. F. G.	FINGER, PROTEIN-DNA INTERACTION PROTEIN DESIGN 2
				•				() () () () () () () () () () () () ()	CRYSTAL STRUCTURE, COMPLEX
- 1									(ZINC FINGER/DNA)
lmey	ပ	166	307	16-11	-0.57	0.00		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
								PROTEIN: CHAIN: C. F. G:	FINGER, PROTEIN-DNA INTERACTION. PROTEIN DESIGN. 2
					,				CRYSTAL STRUCTURE, COMPLEX
					_				(ZINC FINGER/DNA)
lmey	၁	190	335	3e-26	-0.46	0.37		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
				•				CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
					_			PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
							-		CRYSTAL STRUCTURE, COMPLEX
-									(ZINC FINGER/DINA)
1mey	ပ	217	307	8e-40	-0.24	0.07		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
								CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
					_			PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
									CRYSTAL STRUCTURE, COMPLEX
Ì									(ZINC FINGER/DNA)
lmey	ပ	766	335	1.3e-39	0.02	9.95		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
						,		CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
						•		PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
									CRYSTAL STRUCTURE, COMPLEX
									(ZINC FINGER/DNA)
1mey	ပ	282	363	6.4e-50	0.29	1.00		DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
								CONSENSUS ZINC FINGER	FINGER, PROTEIN-DNA
								PROTEIN; CHAIN: C, F, G;	INTERACTION, PROTEIN DESIGN, 2
									CRYSTAL STRUCTURE, COMPLEX
- [(ZINC FINGER/DNA)
Imey	o_	282	364	8e-51			98.05	DNA; CHAIN: A, B, D, E;	COMPLEX (ZINC FINGER/DNA) ZINC
								CONSENSOS ZINC FINGER	FINGER, FROI EIN-DIA

PDB CHAI STAR END PSi Blast ID NID TAA AA
Imey C 310 391 8e-51 0.09 1.00
Imey C 338 419 3.2e-51 0.43 1.00
Imey C 366 447 1.3e-50 0.28 1.00
Imey C 394 473 4.8e-47 0.20 1.00
Imey C 422 529 3e-40 -0.02 0.82
•
7 750 378 48 030 100
450 529 5.26-48 0.39
Imey C 476 533 8e-34 0.46 1.00

PDB annotation	FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	COMPLEX (ZINC FINGER/DNA) ZINC FINGER, PROTEIN-DNA INTERACTION, PROTEIN DESIGN, 2 CRYSTAL STRUCTURE, COMPLEX (ZINC FINGER/DNA)	ZINC FINGER TRANSCRIPTION FACTOR SP1; ZINC FINGER, TRANSCRIPTION ACTIVATION, SP1	COMPLEX (TRANSCRIPTION REGULATION/DNA) TFIIIA; 5S GENE; NMR, TFIIIA, PROTEIN, DNA, TRANSCRIPTION FACTOR, 5S RNA 2 GENE, DNA BINDING PROTEIN, ZINC FINGER, COMPLEX 3 (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX
Coumpound	CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	DNA; CHAIN: A, B, D, E; CONSENSUS ZINC FINGER PROTEIN; CHAIN: C, F, G;	SP IF2; CHAIN: NULL;	TRANSCRIPTION FACTOR IIIA; CHAIN: A; 5S RNA GENE; CHAIN: E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE;
SEQFOL D score						_	
PMF		0.48	0.52	0.09	0.07	0.11	0.75
Verify score		-0.12	-0.05	0.02	0.27	-0.24	-0.06
Psi Blast		1.6e-11	6.4e-12 .	9.6e-07	4.8e-17	86-31	9.6e-36
END AA		214	263	218	335	316	400
STAR T AA		187	236	190	239	162	239
CHAI N ID		ڻ ن	ŋ		А	«	Ą
PDB ID		Imey	Imey	lsp2	143	146	1tf6
SEQ ID NO:		1877	1877	1877	1877	1877	1877

PDB annotation	(TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION REGULATION/DNA) COMPLEX (TRANSCRIPTION REGULATION/DNA), RNA POLYMERASE III, 2 TRANSCRIPTION INITIATION, ZINC FINGER PROTEIN	COMPLEX (TRANSCRIPTION
Coumpound	CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN: A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	TFIIIA; CHAIN; A, D; 5S RIBOSOMAL RNA GENE; CHAIN: B, C, E, F;	YY1; CHAIN: C; ADENO-
SEQFOL D score		107.85				
PMF score			0.99	1.00	0.95	0.37
Verify score			-0.02	0.12	0.17	-0.39
Psi Blast		7.5e-68	8e-38	4.8e-38	8e-34	1.4e-26
END AA		471	454	511	531	335
STAR T AA		310	311	367	395	165
CHAI N ID		∢	∢	∢	∢	ပ
808 C1		1476	1476	9,11	1466	1ubd
SEQ NO:		1877	1877	1877	1877	1877

PDB annotation	REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG I; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YYI, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATIONDNA) YING-YANG I; TRANSCRIPTION INITIATION,
Coumpound	ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA;
SEQFOL D score					
PMF score		0.98	0.86	0.00	56.0
Verify score		-0.00	-0.09	0.00	-0.13
Psi Blast		7.5e-40	6.4e-33	3e-50	3.2e-35
END		363	363	391	419
STAR T AA		243	246	287	318
CHAI N ID		ပ	ပ	၁	ပ
PDB ID		lubd	lubd	pqnl	lubd
SEQ ID NO:		1877	1877	1877	1877

PDB annotation	INITIATOR ELEMENT, YYI, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1; TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2 FINGER PROTEIN, DNA-PROTEIN
Coumpound	CHAIN: A, B;	YYI; CHAIN: C, ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS P5 INITIATOR ELEMENT DNA; CHAIN: A, B;	YYI; CHAIN: C; ADENO- ASSOCIATED VIRUS PS INITIATOR ELEMENT DNA; CHAIN: A, B;
SEQFOL D score		86.32			
PMF			0.99	0.95	66.0
Verify score			0.26	0.03	0.10
Psi Blast		3e-48	1.1e-47	4.8e-32	Зе-48
END		448	474	473	501
STAR T AA		340	364	374	392
CHAI N ID		U	U	ပ	ပ
PDB UD		lubd	1ubd	1ubd	lubd
SEQ NO.		1877	1877	1877	1877

PDB annotation	RECOGNITION, 3 COMPLEX (TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGULATION/DNA) YING-YANG 1;	TRANSCRIPTION INITIATION, INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN RECOGNITION, 3 COMPLEX	(TRANSCRIPTION REGULATION/DNA)	COMPLEX (TRANSCRIPTION REGIT ATTON/DNA) YING-YANG 1:	TRANSCRIPTION INITIATION,	INITIATOR ELEMENT, YY1, ZINC 2	FINGER PROTEIN, DNA-PROTEIN	RECOGNITION, 3 COMPLEX	LIKANSCKIFILON	TECOLEA HONDINA)	TEANSCRIPTION REGULATION	ADRI, ZINC FINGER, NMR	TRANSCRIPTION REGULATION	TRANSCRIPTION REGULATION,	ADRI, ZINC FINGER, NMR	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	COMPLEX (DNA-BINDING	PROTEIN/DNA) FIVE-FINGER GLI;	GLI, ZINC FINGER, COMPLEX (DNA-	BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING
Coumpound		YY1; CHAIN: C; ADENO- ASSOCIATED VIRUS P5	INITIATOR ELEMENT DNA; CHAIN: A, B;			YY1; CHAIN: C; ADENO- ASSOCIATED VIRITS P5	INITIATOR ELEMENT DNA;	CHAIN: A, B;				י הייים ייים ייים ייים ייים ייים ייים י	ADKI; CHAIN: NULL;		ADRI; CHAIN: NULL;			ZINC FINGER PROTEIN GLII;	CHAIN: A; DNA; CHAIN: C, D;		ZINC FINGER PROTEIN GLI1:	CHAIN: A; DNA; CHAIN: C, D;			ZINC FINGER PROTEIN GLII;
SEQFOL D score											•											••			93.76
PMF score		1.00				1.00						,,	0.41		0.63			0.80			0.41				
Verify score		0.12				-0.08						07.0	54.0-		-0.23			0.15			0.19				
Psi Blast		1.5e-48				8e-34						7, 0,	1.36-14		1.6e-12			1.5e-46			3.2e-33	1			1.5e-66
END		530				529		•				216	710		309			365			390				421
STAR T AA		420				430						100	707		239			061			246				282
CHAI N ID		၁	- -			၁												∢			A				A
PDB ID		pqnI				Iubd						4	Zagr.		2adr			2gli			2eli)			2gli
SEQ NO DE		1877				1877						1077	1/91		1877			1877			1877				1877

				 			1	1	1	1
PDB annotation	PROTEINDNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLJ; GLJ, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	COMPLEX (DNA-BINDING PROTEIN/DNA) FIVE-FINGER GLI; GLI, ZINC FINGER, COMPLEX (DNA- BINDING PROTEIN/DNA)	HEXAMERIZATION DOMAIN HEXAMERIZATION DOMAIN, ATPASE, TRANSPORT	HEXAMERIZATION DOMAIN HEXAMERIZATION DOMAIN, ATPASE, TRANSPORT	CHAPERONE HSLV; HSLU CHAPERONE, HSLVU, CLPQY, AAA- ATPASE, ATP-DEPENDENT 2 PROTEOLYSIS, PROTEASOME	CELL CYCLE CDC&; CDC6, CDC18, ORC1, AAA PROTEIN, DNA REPLICATION INITATION 2 FACTOR, CELL CYCLE CONTROL FACTOR	CHAPERONE AAA-ATPASE, CLPY, ATP-DEPENDENT PROTEOLYSIS	CHAPERONE AAA-ATPASE, CLPY, ATP-DEPENDENT PROTEOLYSIS	TRANSFERASE CK; NUCLEOTIDE MONOPHOSPHATE KINASE, TRANSFERASE
Coumpound	CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	ZINC FINGER PROTEIN GLII; CHAIN: A; DNA; CHAIN: C, D;	N-ETHYLMALEIMIDE- SENSITIVE FUSION PROTEIN; CHAIN: A:	N-ETHYLMALEIMIDE- SENSTIVE FUSION PROTEIN; CHAIN: A:	HEAT SHOCK PROTEIN HSLV; CHAIN: A, B, C, D; HEAT SHOCK PROTEIN HSLU; CHAIN: E, F;	CELL DIVISION CONTROL PROTEIN 6; CHAIN: A, B;	HEAT SHOCK PROTEIN HSLU; CHAIN: A;	HEAT SHOCK PROTEIN HSLU; CHAIN: A;	CYTIDINE MONOPHOSPHATE KINASE; CHAIN: A;
SEQFOL D score				65.03						
PMF score		0.27	0.93		0.64	0.10	0.28	0.57	0.23	0.15
Verify score		-0.16	-0.16	i	0.35	-0.74	0.22	0.00	0.16	-0.51
Psi Blast		1.5e-66	6e-53	3.2e-15	3.2e-15	3.2e-13	1.5e-15	1.6e-16	4.5e-34	0.0045
END		503	533	424	349	270	405	360	442	245
STAR T AA		310	395	691	196	169	184	169	183	218
CHAI N ID		¥	A	¥	∢	щ	A	A	٧	Ą
PDB CI		2gli	2gli	1d2n	1d2n	1e94	1fnn	1g41	1g41	2cmk
SEQ NO:		1877	1877	1878	1878	1878	1878	1878	1878	1878

 	Т.				<u> </u>		
PDB annotation	AMINOTRANSFERASE CYTOSOLIC ASPARTATE AMINOTRANSFERASE, PIG, IN THE 2 PRESENCE OF LIGAND 2-METHYLASPARTATE, AMINOTRANSFERASE	AMINOTRANSFERASE CYTOSOLIC ASPARTATE AMINOTRANSFERASE, PIG, IN THE 2 PRESENCE OF LIGAND 2-METHYLASPARTATE, AMINOTRANSFERASE			TRYPTOPHAN BIOSYNTHESIS TRYPTOPHAN INDOLE-LYASE; TRYPTOPHAN BIOSYNTHESIS, TRYPTOPHAN INDOLE-LYASE, PYRIDOXAL 2 5'-PHOSPHATE, MONOVALENT CATION BINDING SITE	LYASE ACC SYNTHASE, S- ADENOSYL-L-METHIONINE ETHYLENE BIOSYNTHESIS	RIFAMYCIN BIOSYNTHESIS (RIFD
Соптроша	ASPARTATE AMINOTRANSFERASE; CHAIN: A, B;	ASPARTATE AMINOTRANSFERASE; CHAIN: A, B;	TRANSFERASE(AMINOTRANSF ERASE) ASPARTATE AMINOTRANSFERASE (E.C.2.6.1.1) COMPLEXED WITH 1ARS 3 PYRIDOXAL-5'- PHOSPHATE 1ARS 4	TRANSFERASE(AMINOTRANSF ERASE) ASPARTATE AMINOTRANSFERASE (E.C.2.6.1.1) COMPLEXED WITH 1ARS 3 PYRIDOXAL-5'- PHOSPHATE 1ARS 4	TRYPTOPHANASE; CHAIN: A, B, C, D;	I-AMINOCYCLOPROPANE-1- CARBOXYLATE SYNTHASE; CHAIN: A, B;	3-AMINO-5-
SEQFOL D score	77.13			76.94	71.45		
PMF score		0.88	0.51			1.00	0.33
Verify score		0.08	-0.19			0.44	0.08
Psi Blast	1.6e-58	1.6e-58	1.6e-64	1.6e-64	4.8e-13	0	1.6e-10
END	499	517	457	208	523	515	304
STAR T AA	54	68	8	95	89	08	181
CHAI N ID	∢	₹			∢	∢	Ą
PDB ID	lajs	lajs	lars	lars	lax4	168g	159h
SEQ NO B	1882	1882	1882	1882	1882	1882	1882

			1					J	1	1
PDB annotation	GENE) AHBA SYNTHASE; RIFAMYCIN BIOSYNTHESIS (RIFD GENE)	AMINOTRANSFERASE AMINOTRANSFERASE, PYRIDOXAL ENZYME	AMINOTRANSFERASE AMINOTRANSFERASE, PYRIDOXAL ENZYME	TRANSFERASE TAT; TYROSINE CATABOLISM, TRANSFERASE, AMINOTRANSFERASE, 2 PYRIDOXALS'-PHOSPHATE, PLP	TRANSFERASE TAT; TYROSINE CATABOLISM, TRANSFERASE, AMINOTRANSFERASE, 2 PYRIDOXAL-5'-PHOSPHATE, PLP	TRANSFERASE TRANSFERASE, AMINOTRANSFERASE, PYRIDOXAL PHOSPHATE	LYASE CGS; LYASE, LLP- DEPENDENT ENZYMES, METHIONINE BIOSYNTHESIS	TRANSFERASE AMINOTRANSFERASE FOLD, LARGE PLP-BINDING DOMAIN, SMALL C- 2 TERMINAL DOMAIN, OPEN ALPHA-BETA STRUCTURE.	TRANSFERASE SHMT, SERINE METHYLASE; ALPHA PLP ASPARTATE, AMINO TRANSFERASE, (AAT)-LIKE FOLD	LYASE FES CLUSTER BIOSYNTHESIS, PYRIDOXAL 5'-
Coumpound	HYDROXYBENZOIC ACID SYNTHASE; CHAIN: A;	ASPARTATE AMINOTRANSFERASE; CHAIN: A, B;	ASPARTATE AMINOTRANSFERASE; CHAIN: A, B;	TYROSINE AMINOTRANSFERASE; CHAIN: A, B;	TYROSINE AMINOTRANSFERASE; CHAIN: A, B;	CYSTALYSIN; CHAIN: A, B, C, D, E, F, G, H;	CYSTATHIONINE GAMMA- SYNTHASE; CHAIN: A, B, C, D;	MALY PROTEIN; CHAIN: A, B;	SERÎNE HYDROXYMETHYLTRANSFER ASE; CHAÎN: A, B, C, D;	L-CYSTEINE/L-CYSTINE C-S LYASE; CHAIN: A, B;
SEQFOL D score			134.98		158.29					
PMF		1.00		1.00		1.00	0.13	1.00	00.1	0.87
Verify score		0.52		0.24		0.34	-0.10	0.35	0.42	0.17
Psi Blast		9.6e-84	9.6e-84	1.6e-67	1.6e-67	6e-52	1.6e-08	4.5e-53	4.8e-07	9.6e-13
END		515	514	520	520	514	302	514	415	514
STAR T AA		102	83	99	92	125	144	128	182	123
CHAI N ID		٧	A	٧	¥	¥	∢	4	٧	∢
PDB ID		1bjw	1bjw	15w0	1bw0	1c7n	lcs1	1d2f	ojpi	lelu
SEQ ID NO:		1882	1882	1882	1882	1882	1882	1882	1882	1882

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PDB annotation	PHOSPHATE, 2 THIOCYSTEINE, AMINOACRYLATE, ENZYME- PRODUCT COMPLEX	AMINOTRANSFERASE TRANSFERASE, AMINOTRANSFERASE	AMINOTRANSFERASE TRANSFERASE, AMINOTRANSFERASE	AMINOTRANSFERASE AROAT; AMINOTRANSFERASE	AMINOTRANSFERASE AROAT; AMINOTRANSFERASE			LYASE LYASE, PLP-DEPENDENT ENZYME, PYRIDOXAL PHOSPHATE	AMINOTRANSFERASE PHEAT, TYRAT, AROAT; AMINOTRANSFERASE, AROMATIC
Coumpound		ASPARTATE AMINOTRANSFERASE; CHAIN: A, B, C, D;	ASPARTATE AMINOTRANSFERASE; CHAIN: A, B, C, D;	AROMATIĆ AMINO ACID AMINOTRANSFERASE; CHAIN: A, B;	AROMATIC AMINO ACID AMINOTRANSFERASE; CHAIN: A, B;	TRANSFERASE(AMINOTRANSF ERASE) ASPARTATE AMINOTRANSFERASE (CASPAT) (E.C.2.6.1.1) 2CST 3 COMPLEXED WITH PYRIDOXAL-5'-PHOSPHATE AND MALEATE 2CST 4	TRANSFERASE(AMINOTRANSF ERASE) ASPARTATE AMINOTRANSFERASE (CASPAT) (E.C.2.6.1.1) 2CST 3 COMPLEXED WITH PYRIDOXAL-5'-PHOSPHATE AND MALEATE 2CST 4	TYROSINE PHENOL-LYASE; CHAIN: A, B;	TYROSINE AMINOTRANSFERASE; CHAIN: A, B, C, D, E, F;
SEQFOL D score		79.51		74.67			75.00		
PMF score			1.00		0.88	0.95		0.34	0.95
Verify score			90.0		-0.16	-0.13		10.0	-0.17
Psi Blast		4.8e-52	4.8e-52	8e-53	8e-53	1.6e-58	1.6e-58	1.1e-48	9.6e-58
END AA		516	452	488	457	517	499	508	457
STAR T AA		92	68	62	85	81	88	110	80
CHAI N ID		¥	¥	A	¥	∢	∢	A	Ą
PDB ID		lyaa	l yaa	2ayl	2ay1	2cst	2cst	2tpl	3tat
SEQ NO.		1882	1882	1882	1882	1882	1882	1882	1882

PDB annotation	SUBSTRATES, PLP ENZYME	AMINOTRANSFERASE PHEAT, TYRAT, AROAT; AMINOTRANSFERASE, AROMATIC SUBSTRATES, PLP ENZYME			HYDROLASE TYROSINE PHOSPHATEASE, LAR PROTEIN	HYDROLASE DUAL SPECIFICITY PHOSPHATASE, MAP KINASE HYDROLASE	HYDROLÁSE DUAL SPECIFICITY PHOSPHATASE, MAP KINASE HYDROLÁSE	HYDROLASE VHR; HYDROLASE, PROTEIN DUAL-SPECIFICITY PHOSPHATASE	HYDROLASE VHR; HYDROLASE, PROTEIN DUAL-SPECIFICITY PHOSPHATASE	IMMUNOGLOBULIN
Coumpound		TYROSINE AMINOTRANSFERASE; CHAIN: A, B, C, D, E, F;	TRANSFERASE(AMINOTRANSF ERASE) ASPARTATE AMINOTRANSFERASE (E.C.2.6.1.1) COMPLEX WITH 7AAT 3 PYRIDOXAL-5- PHOSPHATE AT PH 7.5 7AAT 4	TRANSFERASE(AMINOTRANSF ERASE) ASPARTATE AMINOTRANSFERASE (E.C.2.6.1.1) COMPLEX WITH 7AAT 3 PYRIDOXAL-5- PHOSPHATE AT PH 7.5 7AAT 4	LAR; CHAIN: A, B;	PYSTI; CHAIN: NULL;	PYST1; CHAIN: NULL;	HUMAN VHI-RELATED DUAL- SPECIFICITY PHOSPHATASE CHAIN: A, B;	HUMAN VHI-RELATED DUAL- SPECIFICITY PHOSPHATASE CHAIN: A, B;	ANTIBODY CTM01; CHAIN: L,
SEQFOL D score		91.42		78.03	j	68.80		139.04		
PMF score			0.43		0.18		1.00		1.00	1.00
Verify			-0.10		-0.13		0.57		0.74	0.30
Psi Blast		9.6e-58	6.4e-65	6.4c-65	1.1e-58	6.4e-24	6.4e-24	7.5e-31	7.Se-31	9.6e-82
END		497	457	492	220	200	200	208	200	242
STAR T AA		95	73	88	3	22	55	37	50	20
CHAI N ID		A	∢	Ą	В	-		¥	A	Н
PDB ID		3tat	7aat	7aat	Ilar	1mkp	Іткр	1vhr	1vhr	1ae6
SEQ ID NO:		1882	1882	1882	1883	1883	1883	1883	1883	1884

PDB annotation	IMMUNOGLOBULIN, FAB FRAGMENT, HUMANISATION	COMPLEX (VIRAL CAPSID/IMMUNOGLOBULIN) HIV-1	CA, HIV CA, HIV P24, P24; FAB, FAB	LIGHT CHAIN, FAB HEAVY CHAIN COMPLEX (VIRAL	CAPSID/IMMUNOGLOBULIN), HIV, CAPSID PROTEIN, 2 P24	COMPLEX (MHC/VIRAL	PEPTIDE/RECEPTOR) HLA A2	HEAVY CHAIN; COMPLEX	(MHC/VIRAL PEPTIDE/RECEPTOR)		COMPLEX (MHC/VIRAL	PEPTIDE/RÈCEPTOR) HLA A2	HEAVY CHAIN; COMPLEX	(MHC/VIRAL PEPTIDE/RECEPTOR)		RECEPTOR T CELL RECEPTOR 1BEC	14	IMMUNE SYSTEM IMMUNE	SYSTEM				IMMUNOGLOBULIN FAB,	ANTIBODY, ANTIGEN, HIV-1, P24,	¥.	
Coumpound	Ĥ	HUMAN IMMUNODEFICIENCY VIRUS TYPE I CAPSID CHAIN:	A, B; ANTIBODY FAB25.3	FRAGMENT; CHAIN: H, K, L, M;		HLA-A 0201; CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	TAX PEPTIDE; CHAIN: C; T	CELL RECEPTOR ALPHA;	CHAIN: D; T CELL RECEPTOR RFTA: CHAIN: F:	HLA-A 0201; CHAIN: A; BETA-2	MICROGLOBULIN; CHAIN: B;	TAX PEPTIDE; CHAIN: C; T	CELL RECEPTOR ALPHA;	CHAIN: D; T CELL RECEPTOR BETA; CHAIN; E;	14.3.D T CELL ANTIGEN	RECEPTOR; IBEC 5 CHAIN:	CHIMERIC GERMLINE	PRECURSOR OF OXY-COPE	CHAIN: L; CHIMERIC	GERMLINE PRECURSOR OF	OXY-COPE CHAIN: H;	IMMUNOGLOBULIN LIGHT	CHAIN; CHAIN: L;	CHAIN: CHAIN: H:	IMMUNOGLOBULIN FAB
SEQFOL D score						301.81										273.44										
PMF score		1.00									1.00							0.99					9.			1.00
Verify score		0.43									99.0							0.23					0.40			0.18
Psi Blast		8e-84				1.2e-81					1.2e-81					1.5e-76		1.3e-81					4.8e-81			1.le-84
END		244				261					261					261		244					244			247
STAR T A A	·	20				21					22					21		20					8			20
CHAI N ID		Ŧ				3			_		ш	_						H					I			В
PDB ID		lafv				1bd2					1bd2					1bec		IdSi					leeo			Ifvd
SEQ NO:		1884				1884					1884					1884		1884					1884			1884

PDB annotation		a	IMMUNOGLOBULIN INTACT IMMUNOGLOBULIN V REGION C REGION, IMMUNOGLOBULIN	IMMUNOGLOBULIN INTACT IMMUNOGLOBULIN, V REGION, C REGION, HINGE REGION	IMMUNOGLOBULIN IMMUNOGLOBULIN,	IMMUNOGLOBULIN VARIABLE HEAVY (VH) DOMAIN, VARIABLE LIGHT (VL) ANTIBODY FRAGMENT, MULTIVALENT ANTIBODY, DIABODY, DOMAIN 2 SWAPPING, IMMUNOGLOBULIN	RECEPTOR TCR; T-CELL, RECEPTOR, TRANSMEMBRANE, GLYCOPROTEIN, SIGNAL	CHAPERONE AAA-ATPASE, CLPY, ATP-DEPENDENT PROTEOL YSIS	PROTEIN-PROTEIN INTERACTION POWARD TO ASSESSED THE ASSESS
Coumpound.	FRAGMENT OF HUMANIZED ANTIBODY 4D5, VERSION 4 IFVD 3	COMPLEX (ANTIBODY/BINDING PROTEIN) IGG1 FAB FRAGMENT COMPLEXED WITH PROTEIN G (DOMAIN III) IIGC 5 PROTEIN G,	IGG2A INTACT ANTIBODY - MAB231; CHAIN: A, B, C, D	IGGI INTACT ANTIBODY MAB61.1.3; CHAIN: A, B, C, D	NIG9 (IGG1=LAMBDA=); CHAIN: L, H;	SINGLE-CHAIN ANTIBODY FRAGMENT; CHAIN: A, C;	ALPHA, BETA T-CELL RECEPTOR CHAIN: A, B;	HEAT SHOCK PROTEIN HSLU; CHAIN: A;	PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAN: 4.
SEQFOL D score							277.99		
PMF score		1.00	0.98	0.82	1.00	1.00		0.04	1.00
Verify		0.22	-0.00	0.07	0.21	0.22		-0.34	0.34
Psi Blast		1.6e-83	3.2e-90	3.2e-82	1.6e-83	9e-07	8e-71	0.0094	4.8e-24
END AA		247	282	282	244	130	262	369	129
STAR T AA		50	20	21	20	12	19	314	10
CHAI		H	æ	B	н	∢	Ø	4	A
an an		ligc	1igt	ligy	lngp	lnqb	ltcr	1g41	onqI
SEQ	Ö	1884	1884	1884	1884	1884	1884	1885	1886

					-					-		
PDB annotation	REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION	GENE REGULATION POZ DOMAIN; PROTEIN-PROTEIN INTERACTION DOMAIN, TRANSCRIPTIONAL 2 REPRESSOR, ZINC-FINGER PROTEIN, X-RAY CRYSTALLOGRAPHY, 3 PROTEIN STRUCTURE, PROMYELOCYTIC LEUKEMIA, GENE REGULATION				RNA-BINDING PROTEIN/RNA TRA PRE-MRNA; SPLICING PEGITI ATTON PNE DOMARIN PNA	COMPLEX	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE	REGULATION/RNA		GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM,	PROTEIN-RNA COMPLEX, GENE REGULATION/RNA
Coumpound		PROMYELOCYTIC LEUKEMIA ZINC FINGER PROTEIN PLZF; CHAIN: A;	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3	OXIDOREDUCTASE(OXYGEN(A)) GALACTOSE OXIDASE (E.C.1.1.3.9) (PH 4.5) 1GOF 3		SXL-LETHAL PROTEIN; CHAIN: A, B; RNA (5'-	UP*UP*UP*U)- CHAIN: P, Q;	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H: RNA (5'-	R(*AP*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)-3); CHAIN: M, N,	0, r, V, K, 3, 1,	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D,	E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP*AP
SEQFOL D score		59.44										
PMF score			0.27	0.12		1.00		1.00		1	68.0	
Verify score			0.31	0.36		0.53		0.41	ı		0.41	
Psi Blast		4.8e-24	1.2e-32	6.4e-12		9e-05		3e-05		,	36-05	
END		134	551	555		1410		1410			1410	
STAR T AA		6	291	301		1342	_	1342		0,0,	1340	
CHAI N ID		A		_		V		∢		6	20	
PDB ID		1buo	1gof	lgof		1b7f		1cvj			[c _v]	
SEQ ID NO:		1886	1886	1886		1887		1887		5	188/	

PDB annotation		RNA BINDING PROTEIN RNA- BINDING DOMAIN	STRUCTURAL PROTEIN PROTEIN C23; RNP, RBD, RRM, RNA BINDING DOMAIN, NUCLEOLUS	OUTER MEMBRANE PROTEIN OSMOPORIN; OUTER MEMBRANE PROTEIN, NON-SPECIFIC PORIN, OSMOPORIN, 2 BETA-BARREL, TRANSMEMBRANE		HYDROLASE DOUBLE BETA BARREL, BACTERIAL SERINE PROTEASE		RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	RNA-BINDING PROTEIN SPLICING, U2 SNRNP, RBD, RNA-BINDING PROTEIN	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2
Coumpound	AP*AP*AP*A)-3'); CHAIN: M, N, O, P, Q, R, S, T;	HU ANTIGEN C; CHAIN: A;	NUCLEOLIN RBD2; CHAIN: A;	OMPK36; CHAIN: A, B, C;	OUTER MEMBRANE PROTEIN PHOSPHOPORIN (PHOE) 1PHO 3	ALPHA-LYTIC PROTEASE; CHAIN: A;	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN 1SXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) 1SXL 4 (NMR, 17 STRUCTURES) 1SXL 5	SEX-LETHAL PROTEIN; CHAIN: NULL;	SPLICING FACTOR U2AF 65 KD SUBUNIT; CHAIN: A;	SEX-LETHAL; CHAIN: A, B, C;
SEQFOL D score										
PMT score		1.00	0.65	-0.20	-0.19	-0.19	0.54	1.00	66:0	0.55
Verify score		0.45	0.42	0.70	0.77	0.89	0.07	0.47	0.44	0.01
Psi Blast		4.5e-05	3e-05	4.5e-09	7.5e-10	4.5e-08	0.00015	0.00015	1.3e-05	9-02
END		1410	1417	207	218	204	1396	1410	1410	1432
STAR T AA		1342	1331	14	11	37	1325	1339	1342	1339
CHAI N ID		٧	¥	∢		¥			Ą	Ą
PDB ID		78p1	1fjc	losm	1pho	1994	lsxl	2sxl	2u2f	3sxl
SEQ ID NO:		1887	1887	1887	1887	1887	1887	1887	1887	1887

	SEX 3 SOME	TRA	,Y(A)	RRM,			Y(A)						2	EIN	EIN	EIN	EIN DING ANE	EIN DING ANE	EIN DDING ANE IN,
PDB annotation	SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3 DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	RNA-BINDING PROTEIN/RNA TRA PRE-MRNA; SPLICING REGULATION, RNP DOMAIN, RNA	COMPLEX GENE REGULATION/RNA POLY(A)	BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX. GENE	REGULATION/RNA		GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1 PARP 1: RRM	PROTEIN-RNA COMPLEX, GENE	REGULATIONRNA			RNA BINDING PROTEIN RNA-	RNA BINDING PROTEIN RNA- BINDING DOMAIN STRIICTIIRAL PROTEIN PROT	RNA BINDING PROTEIN RNA- BINDING DOMAIN STRUCTURAL PROTEIN PROTEIN C23; RNP, RBD, RRM, RNA BINDING DOMAIN, NUCLEOLUS	RNA BINDING PROTEIN RNA- BINDING DOMAIN STRUCTURAL PROTEIN PROT C23; RNP, RBD, RRM, RNA BIN DOMAIN, NUCLEOLUS OUTER MEMBRANE PROTEIN	RNA BINDING PROTEIN RNA- BINDING DOMAIN STRUCTURAL PROTEIN PROTEIN C23; RNP, RBD, RRM, RNA BINDIN DOMAIN, NUCLEOLUS OUTER MEMBRANE PROTEIN OSMOPORIN, OUTER MEMBRANE	RNA BINDING PROTEIN RNA- BINDING DOMAIN STRUCTURAL PROTEIN PROTEI C23; RNP, RBD, RRM, RNA BINDI DOMAIN, NUCLEOLUS OUTER MEMBRAN OSMOPORIN; OUTER MEMBRAN PROTEIN, NON-SPECIFIC PORIN,	BINDING PROTEIN RNA- BINDING DOMAIN STRUCTURAL PROTEIN PROTI C23; RNP, RBD, RRM, RNA BINI DOMAIN, NUCLEOLUS OUTER MEMBRANE PROTEIN OSMOPORIN, OUTER MEMBRA PROTEIN, NON-SPECIFIC PORJ OSMOPORIN, 2 BETA-BARREL, TRANSMEMBRANE	RNA BINDING PROTEIN RNA-BINDING DOMAIN STRUCTURAL PROTEIN PROT C23; RNP, RBD, RRM, RNA BIN DOMAIN, NUCLEOLUS OUTER MEMBRANE PROTEIN OSMOPORIN, OUTER MEMBR PROTEIN, NON-SPECIFIC POR DSMOPORIN, 2 BETA-BARREI TRANSMEMBRANE
	SPLI TRA DET			PRO			GEN	PRO	REG			RNA	RNA	RNA BINI STRI C23;	RNA BINI STR C23; DON	STRU C23; OUT	STR C23; DOV OUT	RNA BINI STRI C23; DOW OUT PRO OSM TRA	
Coumpound		SXL-LETHAL PROTEIN; CHAIN: A, B; RNA (5'- R(P*GP*UP*UP*UP*UP*	UP*UP*UP*UP*UP-CHAIN: P, Q; POLYDENYLATE BINDING	PROTEIN 1; CHAIN: A, B, C, D, E. F. G. H. RNA (5-	R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*A)-3'); CHAIN: M. N.	O, P, Q, R, S, T;	POLYDENYLATE BINDING PROTEIN 1: CHAIN: A B C D	E, F, G, H; RNA (5'-	R(*AP*AP*AP*AP*AP*AP*	AP*AP*AP-A)-3'); CHAIN: M, N,	O, P, C, K, S, L;	O, P, Q, K, S, T; HU ANTIGEN C; CHAIN: A;	U, P, Q, R, S, 1; HU ANTIGEN C; CHAIN: A; NIICLEOLIN RRD2: CHAIN: A	O, F, Q, K, S, T; HU ANTIGEN C; CHAIN: A; NUCLEOLIN RBD2; CHAIN: A;	O, F, Q, K, S, T; HU ANTIGEN C; CHAIN: A; NUCLEOLIN RBD2; CHAIN: A; OMPK36; CHAIN: A, B, C;	O, F, Q, K, S, I; HU ANTIGEN C; CHAIN: A; NUCLEOLIN RBD2; CHAIN: A; OMPK36; CHAIN: A, B, C;	O, F, Q, K, S, I; HU ANTIGEN C; CHAIN: A; NUCLEOLIN RBD2; CHAIN: A; OMPK36; CHAIN: A, B, C;	O, F, Q, K, S, I; HU ANTIGEN C; CHAIN: A; NUCLEOLIN RBD2; CHAIN: A; OMPK36; CHAIN: A, B, C;	O. F. Q. K. S. T.; HU ANTIGEN C; CHAIN: A; NUCLEOLIN RBD2; CHAIN: A; OMPK36; CHAIN: A, B, C; OUTER MEMBRANE PROTEIN PHOSPHOPORIN (PHOE) 1PHO 3
SEQFOL D score								·											
PMF		1.00	1.00				68.0					1.00	1.00	1.00	0.65	0.65	0.65	0.65	0.65
Verify		0.53	0.41				0.41					0.45	0.45	0.45	0.42	0.42	0.45	0.45	0.45
Psi Blast		9e-05	3e-05				3e-05		_		-	4.5e-05	4.5e-05	4.5e-05 3e-05	4.5e-05 3e-05 4.5e-09	4.5e-05 3e-05 4.5e-09	4.5e-05 3e-05 4.5e-09	4.5e-05 3e-05 4.5e-09	4.5e-05 3e-05 4.5e-09 7.5e-10
END AA		1371	1371				1371					1371	1371	1371	1371	1378	1378	1378	1371 1378 207 218
STAR T AA		1303	1303				1301					1303	1303	1303	1292	1303 1292 14	1303 1292 14	1303 1292 14	1303
CHAI		4	Ą				8					A	4 4	A A	4 4 4	4 4 4	4 4	4 4 4	4
PDB UD		167f	Icvj				lcvj					Id8z	1d8z 1fic	1d8z 1fjc	1d8z 1fjc 1osm	1d8z 1fjc losm	1d8z 1fjc 1osm	148z 1fjc 1osm	148z 14jc 1 losm
SEQ NO:		1888	1888				1888					1888	1888	1888	1888 1888 1888	1888	1888 1888 1888	1888 1888 1888	1888 1 1888 1 1888

PDB annotation	BARREL, BACTERIAL SERINE PROTEASE		RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	RNA-BINDING PROTEIN SPLICING, U2 SNRNP, RBD, RNA-BINDING PROTEIN	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3 DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	RNA-BINDING PROTEIN/RNA TRA PEE-MRNA; SPLICING REGULATION, RNP DOMAIN, RNA	COMPLEX GENE REGULATION/RNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA
Coumpound	CHAIN: A;	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN 1SXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) 1SXL 4 (NMR, 17 STRUCTURES) 1SXL 5	SEX-LETHAL PROTEIN; CHAIN: NULL;	SPLICING FACTOR U2AF 65 KD SUBUNIT; CHAIN: A;	SEX-LETHAL; CHAIN: A, B, C;	SXL-LETHAL PROTEIN; CHAIN: A, B; RNA (5'- R(P*GP*UP*UP*UP*UP*	UP*UP*UP*UP*UD- CHAIN: P, Q; POLYDENYLATE BINDING PROTEIN I; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP*AP* AP*AP*AP*A); CHAIN: M, N, O, P, Q, R, S, T;
SEQFOL D score							
PMF score		0.54	1.00	0.99	0.55	1.00	1.00
Verify		0.07	0.47	0.44	0.01	0.53	0.41
Psi Blast		0.00015	0.00015	1.3e-05	6e-05	9e-05	3e-05
END		1357	1371	1371	1393	1313	1313
STAR T A A		1286	1300	1303	1300	1245	1245
CHAI N ID				∢	⋖	<	V
PDB OI		1sxl	2sxi	2u2f	3sxl	167f	Icvj
SEQ ID NO:		1888	1888	1888	1888	1889	1889

PDB annotation	GENE REGULATIONRNA POLY(A) BINDING PROTEIN 1, PABP 1; RRM, PROTEIN-RNA COMPLEX, GENE REGULATION/RNA	RNA BINDING PROTEIN RNA- BINDING DOMAIN	STRUCTURAL PROTEIN PROTEIN C23; RNP, RBD, RRM, RNA BINDING DOMAIN, NUCLEOLUS	OUTER MEMBRANE PROTEIN OSMOPORIN; OUTER MEMBRANE PROTEIN, NON-SPECIFIC PORIN, OSMOPORIN, 2 BETA-BARREL, TRANSMEMBRANE		HYDROLASE DOUBLE BETA BARREL, BACTERIAL SERINE PROTEASE		RNA-BINDING DOMAIN RNA- BINDING DOMAIN, ALTERNATIVE SPLICING	RNA-BINDING PROTEIN SPLICING, U2 SNRNP, RBD, RNA-BINDING
Coumpound	POLYDENYLATE BINDING PROTEIN 1; CHAIN: A, B, C, D, E, F, G, H; RNA (5'- R(*AP*AP*AP*AP*AP*AP* AP*AP*AP*3); CHAIN: M, N, O, P, Q, R, S, T;	HU ANTIGEN C; CHAIN: A;	NUCLEOLIN RBD2; CHAIN: A;	OMPK36; CHAIN: A, B, C;	OUTER MEMBRANE PROTEIN PHOSPHOPORIN (PHOE) 1PHO 3	ALPHA-LYTIC PROTEASE; CHAIN: A;	RNA-BINDING PROTEIN SEX- LETHAL PROTEIN (C- TERMINUS, OR SECOND RNA- BINDING DOMAIN 1SXL 3 (RBD-2), RESIDUES 199 - 294 PLUS N-TERMINAL MET) 1SXL 4 (NMR, 17 STRUCTURES) 1SXL 5	SEX-LETHAL PROTEIN; CHAIN: NULL;	SPLICING FACTOR U2AF 65 KD SUBUNIT; CHAIN: A;
SEQFOL D score							1		
PMF score	0.89	1.00	0.65	-0.20	-0.19	-0.19	0.54	1.00	0.99
Verify score	0.41	0.45	0.42	0.70	0.77	0.89	0.07	0.47	0.44
Psi Blast	3e-05	4.5e-05	3e-05	4.5e-09	7.5e-10	4.5e-08	0.00015	0.00015	1.3e-05
END	1313	1313	1320	207	218	204	1299	1313	1313
STAR T AA	1243	1245	1234	14	Ξ	37	1228	1242	1245
CHAI N ID	æ	¥	٧	¥		4			A
PDB ID	Icvj	z8p1	1fjc	losm	1pho	1994	[sx]	2sxl	2u2f
SEQ NO:	1889	1889	1889	1889	1889	1889	1889	1889	1889

PDB annotation	PROTEIN	RNA BINDING DOMAIN RNA BINDING DOMAIN, RBD, RNA RECOGNITION MOTIF, RRM, 2 SPLICING INHIBITOR, TRANSLATIONAL INHIBITOR, SEX 3 DETERMINATION, X CHROMOSOME DOSAGE COMPENSATION	RECEPTOR RECEPTOR, SIGNAL TRANSDUCER OF IL-6 TYPE CYTOKINES, THIRD 2 N-TERMINAL DOMAIN, TRANSMEMBRANE, GI VCOPROTEN	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III	CONNECTIN A71, CONNECTIN; TITIN, CONNECTIN, FIBRONECTIN TYPE III		HEPARIN AND INTEGRIN BINDING HEPARIN AND INTEGRIN BINDING	STRUCTURAL PROTEIN INTEGRIN, HEMIDESMOSOME, FIBRONECTIN, CARCINOMA, STRUCTURAL 2
Coumpound		SEX-LETHAL; CHAIN: A, B, C;	GP130; CHAIN: NULL;	TITIN; CHAIN: NULL;	TITIN; CHAIN; NULL;	NEURAL ADIFESION MOLECULE DROSOPHILA NEUROGLIAN (CHYMOTRYPTIC FRAGMENT CONTAINING THE ICFB 3 TWO AMINO PROXIMAL FIBRONECTIN TYPE III REPEATS ICFB 4 (RESIDUES 610 - 814)) ICFB 5	FIBRONECTIN; CHAIN: A;	INTEGRIN BETA-4 SUBUNIT; CHAIN: A, B;
SEQFOL D score							57.74	
PMF score		0.55	0.23	0.70	0.94	-0.18		-0.06
Verify score		0.01	0.21	0.07	0.18	0.02		0.28
Psi Blast		6e-03	1.6e-12	9.6e-11	1.2e-12	1.6e-16	6.4e-28	9.6e-17
END		1335	262	265	266	355	450	348
STAR T AA		1242	166	165	165	162	168	168
CHAI N ID		v					٧	, V
PDB ID		3sxl	1bj8	1bpv	1bpv	1cfb	1fnh	19g3
SEQ ID NO:		1889	1894	1894	1894	1894	1894	1894

	_					-	I					_				
PDB annotation	PROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN	STRUCTURAL PROTEIN TENASCIN, FIBRONECTIN TYPE-III, HEPARIN, EXTRACELLULAR 2 MATRIX, ADHESION, FUSION PROTEIN, STRUCTURAL PROTEIN			RNA BINDING PROTEIN/RNA	ALKBEA; FRO JEIN-KNA COMFLEA, DOUBLE STRANDED RNA,	PROTEIN-RNA 2 INTERACTIONS,	RNA-BINING PROTEIN, RNA BINDING PROTEIN/RNA	SH3 PROTOTYPE WWPROTOTYPE, PROTEIN DESIGN	CELL CYCLE/RNA DSRBDIII; NMR	STRUCTURE, PROTEIN/RNA,	PROTEIN DSRBD, DROSOPHILA,	KNA 2 HAIKPIN	ISOMERASE PINI; PEPTIDYL.
Coumpound		TENASCIN; CHAIN: A, B;	TENASCIN; CHAIN: A, B;	TENASCIN; CHAIN: A, B;	GLYCOPROTEIN FIBRONECTIN (TENTH TYPE III MODULE) (NMR, 36 STRUCTURES) ITTF 3		DOUBLE STRANDED RNA	BINDING FROIEIN A; CHAIN: A, B; RNA (5'-	R(*GP*GP*CP*GP*CP*GP*CP*G	P*CP*C)-3'); CHAIN: C, D, E, G;	WWPROTOTYPE; CHAIN: A;	MATERNAL EFFECT PROTEIN	(STAUFEN); CHAIN: A;	STAUFEN DOUBLE-STRANDED	KNA BINDING DOMAIN; CHAIN: B;	PEPTIDYL-PROLYL CIS-TRANS
SEQFOL D score																
PMF		0.29	0.12	-0.20	0.49		0.42				0.41	0.70				0.29
Verify score		-0.24	0.09	0.03	0.15		0:30				-0.10	0.57				-0.46
Psi Blast		4.5e-13	9.6e-15	4.8e-15	3e-13		1.1e-07				0.0003	6e-12				9000'0
END		261	349	450	265		293				49	293				49
STAR T AA		164	169	271	164		230				20	226				=
CHAI N ID		A	V	∢			4				⋖	٧				В
PDB ID		lqr4	1qr4	1qr4	1tt		1di2				le0m	1ekz				1f8a
SEQ NO.		1894	1894	1894	1894		1895				1895	1895				1895

		NDING	
FDB annotation	PROLINE ISOMERASE, WW DOMAIN, PHOSPHOSERINE BINDING	DOUBLE STRANDED RNA BINDING DOMAIN STAUFEN 1STU 13	
Coumpound	ISOMERASE NIMA- CHAIN: B; Y(SEP)PT(SEP)S PEPTIDE; CHAIN: C;	MATERNAL EFFECT PROTEIN STAUFEN; 1STU 4	
SEQFOL D score			
PMF		0.25	
Verify			
Psi Blast Verify PMF SEQFOL score score D score		3e-05 0.18	
END AA		293	
CHAI STAR NID TAA		233	
CHAI N ID			
PDB CF		lstu	
8 8 8 8		1895	

TABLE 6

SEQ ID NO:	Position of Signal in Amino Acid SEquence	maxS (Maximum score)	meanS (Mean score)
949	24	0.926	0.738
950	24	0.976	0.913
951	22	0.982	0.872
952	41	0.937	0.604
953	23	0.896	0.747
954	16	0.945	0.737
955	45	0.964	0.657
056	48	0.994	0.855
)57	31	0.984	0.921
958	23	0.966	0.812
59	36	0.994	0.757
60	20	0.977	0.902
61	18	0.968	0.799
62	24	0.882	0.599
63	34	0.921	0.652
64	25	0.921	0.787
65	33	0.967	0.803
66	30	0.978	0.786
67	28	0.980	0.893
68	24	0.976	0.913
69	22	0.984	0.928
70	26	0.949	0.664
71	23	0.996	0.936
72	28	0.929	0.700
73	26	0.976	0.875
74	17	0.919	0.828
775	28	0.976	0.653
76	30	0.996	0.894
77	17	0.953	0.784
78	22	0.982	0.872
79	19	0.890	0.552
80	18	0.984	0.958
81	19	0.981	0.916
82	19	0.995	0.971
83	21	0.980	0.904
84	21	0.980	0.904
85	16	0.961	0.916
86	26	0.951	0.801
87	43	0.992	0.943
88	41	0.937	0.604
89	43	0.994	0.659
90	29	0.986	0.848
91	37	0.984	0.878
92	19	0.942	0.693
93	22	0.982	0.872
95	19	0.993	0.931
96	22	0.992	0.807
97	28	0.990	0.919
98	23	0.896	0.747
99	23	0.985	0.951
000	21	0.989	0.925
001	11	0.900	0.758
002 004	18	0.933 0.881	0.634 0.607

SEQ ID NO:	Position of Signal in Amino Acid SEquence	maxS (Maximum score)	meanS (Mean score)
1005	18	0.964	0.812
1006	19	0.972	0.915
1007	24	0.997	0.929
1008	16	0.945	0.737
1009	31	0.957	0.775
1010	22	0.975	0.822
1011	28	0.946	0.799
1012	24	0.973	0.910
1013	29	0.968	0.769
1014	25	0.977	0.776
1015	41	0.986	0.847
1016	28	0.988	0.938
1017	23	0.976	0.897
1018	45	0.964	0.657
1019	28	0.956	0.604
1020	33	0.948	0.776
1021	18	0.930	0.679
1022	26	0.947	0.594
1023	31	0.991	0.925
1024	41	0.942	0.703
1025	36	0.910	0.749
1026	24	0.988	0.919
1027	27	0.962	0.696
1028	23	0.965	0.693
1029	22	0.962	0.919
1030	24	0.943	0.832
1031	34	0.973	0.817
1032	22	0.947	0.677
1033	25	0.889	0.718
1034	27	0.962	0.856
1035	19	0.967	0.909
1036	39	0.986	0.922
1037	28	0.982	0.924
1038	44	0.974	0.662
1039	29	0.984	0.763
1040	22	0.974	0.796
1041	29	0.928	0.725
1051	23	0.966	0.812
1054	19	0.951	0.895
1055	16	0.927	0.827
1056	25	0.949	0.823
1058	28	0.980	0.848
1061	24	0.965	0.891
1062	25	0.946	0.860
1067	36	0.964	0.648
1074	32	0.941	0.669
1076	17	0.995	0.974
1083	18	0.968	0.799
1089	24	0.882	0.599
1091	38	0.991	0.904
1094	29	0.963	0.888
1096	19	0.892	0.715
	34		
1101		0.921	0.652
1102	20	0.951	0.839
1106	31	0.921	0.659
1110	36	0.992	0.917

SEQ ID NO:	Position of Signal in Amino Acid SEquence	maxS (Maximum score)	meanS (Mean score)
1124	30	0.989	0.910
1125	28	0.974	0.851
1127	25	0.937	0.812
1130	30	0.978	0.786
1131	27	0.987	0.879
1133	23	0.923	0.655
1144	28	0.980	0.893
1147	27	0.963	0.833
1150	24	0.976	0.913
1151	24	0.988	0.967
1152	22	0.968	0.831
1154	21	0.952	0.822
1155	42	0.939	0.682
1157	22	0.984	0.928
1158	22	0.984	0.928
1165	21	0.942	0.713
1167	18	0.922	0.838
1170	18	0.988	0.944
1174	18	0.975	0.958
1175	18	0.975	0.958
1176	18	0.975	0.958
1177	48	0.989	0.889
1178	23	0.996	0.936
1180	16	0.967	0.933
1193	15	0.948	0.907
1195	27	0.936	0.689
1196	42	0.978	0.750
1197	15	0.977	0.966
1199	26	0.976	0.875
1200	28	0.973	0.822
1201	28	0.990	0.925
1205	22	0.982	0.933
1206	15	0.986	0.919
1207	27	0.994	0.900
1215	21	0.989	0.871
1220	28	0.976	0.653
1226	20	0.987	0.916
1229	30	0.996	0.894
1230	41	0.983	0.791
1234	20	0.978	0.893
1239	17	0.953	0.784
1240	25	0.950	0.897
1241	20	0.974	0.912
1242	15	0.974	0.817
1247	35	0.973	0.795
1250	22	0.982	0.872
1251	18	0.983	0.927
1254	20	0.934	0.828
1255	16	0.952	0.807
1256	19	0.904	0.656
1260	35	0.957	0.640
1261	35	0.957	0.640
1263	33	0.953	0.707
1264	24	0.981	0.884
1265	24	0.987	0.914
1266	21	0.977	0.905
1200		U.311	נטביט ן

	Position of Signal in Amino Acid SEquence	maxS (Maximum score)	meanS (Mean score)
1267	24	0.978	0.911
1268	18	0.984	0.958
1269	18	0.984	0.958
1270	24	0.989	0.922
1271	18	0.984	0.956
1272	18	0.986	0.965
1273	18	0.986	0.965
1276	32	0.956	0.706
127 <i>7</i>	48	0.983	0.616
1278	20	0.965	0.878
1282	16	0.921	0.828
1283	20	0.937	0.700
1293	19	0.995	0.971
1294	19	0.995	0.971
1296	20	0.926	0.751
1302	29	0.981	0.937
1310	27	0.977	0.849
1314	24	0.977	0.845
1315	23	0.990	0.833
1317	25	0.971	0.894
1318	16	0.961	0.916
1319	41	0.980	0.681
1328	17	0.977	0.921
1329	26	0.993	0.894
1331	25	0.986	0.939
1333	33	0.977	0.811
1340	43	0.992	0.943
1341	20	0.943	0.882
1343	20	0.995	0.933
1344	26	0.938	0.663
1346	21	0.955	0.767
1347	19	0.920	0.692
1348	41	0.937	0.604
1349	41	0.937	0.604
1353	19	0.986	0.961
1357	41	0.923	0.559
1359	25	0.973	0.853
1361	20	0.935	0.817
1364	29	0.958	0.637
1365	23	0.991	0.740
1368	29	0.986	0.848
1369	18	0.997	0.979
1373	16	0.979	0.964
1375	25	0.980	0.952
1376	37	0.989	0.822
1378	37	0.984	0.878
1379	42	0.978	0.698
1380	18	0.969	0.913
1383	31	0.981	0.856
1386	36	0.987	0.595
1387	27	0.955	0.786
1389	17	0.935	0.825
1390	34	0.954	0.783
1393	19	0.954	0.839
1396	27		
1397	1 41	0.944	0.778 0.734

SEQ ID NO:	Position of Signal in Amino Acid SEquence	maxS (Maximum score)	meanS (Mean score)
1404	22	0.982	0.872
1427	19	0.993	0.931
1428	22	0.992	0.807
1430	22	0.918	0.716
1433	38	0.994	0.887
1436	24	0.914	0.588
1438	28	0.990	0.919
1442	26	0.990	0.969
1446	36	0.954	0.817
1450	23	0.896	0.747
1451	23	0.969	0.855
1456	24	0.985	0.932
1462	23	0.985	0.951
1464	27	0.985	0.927
1465	21	0.960	0.649
1467	41	0.990	0.922
1468	20	0.991	0.954
1469	20	0.991	0.954
1473	21	0.975	0.909
1478	11	0.900	0.758
1493	18	0.933	0.634
1495	22	0.899	0.639
1496	40	0.953	0.668
1509	16	0.881	0.607
1516	36	0.924	0.590
1517	25	0.919	0.718
1518	28	0.928	0.590
1519	27	0.967	0.872
1526	25	0.998	0.934
1527	30	0.973	0.829
1547	20	0.937	0.728
1551	30	0.962	0.801
1552	17	0.925	0.779
1557	20	0.981	0.910
1562	17	0.977	0.921
1565	25	0.938	0.677
1568	22	0.975	0.822
1577	34	0.934	0.552
1578	28	0.946	0.799
1583	15	0.954	0.725
1584	30	0.938	0.808
1592	24	0.973	0.910
1597	24	0.920	0.596
1600	29	0.968	0.769
	28	0.975	0.026
1604			
1613	25	0.977	0.776
1618 1627		0.986	
	24		0.578
1630	24	0.950	0.737
1631	28	0.987	0.785
1632	19	0.890	0.552
1633	22	0.968	0.934
1634	22	0.968	0.934
1635	23	0.965	0.883
1636	23	0.965	0.883
1638	26	0.896	0.615

SEQ ID NO:	Position of Signal in Amino Acid SEquence	maxS (Maximum score)	meanS (Mean score
1641	30	0.956	0.665
1644	39	0.971	0.694
1646	44	0.992	0.576
1649	45	0.964	0.657
1650	45	0.964	0.657
1653	17	0.968	0.947
1655	28	0.960	0.607
1657	31	0.977	0.720
1662	28	0.956	0.604
1666	47	0.985	0.646
1667	19	0.990	0.946
1677	47	0.996	0.556
1684	18	0.930	0.679
1687	25	0.992	0.948
1689	26	0.947	0.594
1693	22	0.963	0.859
1695	26	0.956	0.830
1703	26	0.990	0.959
1706	40	0.987	0.939
1707	26	0.985	0.917
1710	36	0.991	0.868
1713	24	0.887	0.553
1714	23	0.995	0.974
1715	18	0.997	0.977
1716	22	0.968	0.934
1718	26	0.974	0.730
1 <i>7</i> 18	18	0.983	0.939
1731	24	0.988	0.919
1743	30	0.939	0.639
1744	26	0.984	0.746
1755	23	0.965	0.693
1758	23 22	0.962	0.919
1759			
	21	0.988	0.911
1760	36	0.980	0.559
1769	10	0.880	0.780
1771	14	0.922	0.678
1773	39	0.982	0.829
1778	34	0.973	0.817
1779	36	0.976	0.794
1786	18	0.918	0.651
1787	35	0.991	0.834
1789	22	0.947	0.677
1795	24	0.963	0.865
1796	30	0.967	0.758
1797	33	0.926	0.807
1800	25	0.889	0.718
1805	20	0.995	0.968
1807	27	0.887	0.642
1810	41	0.975	0.875
1813	26	0.921	0.620
826	36	0.951	0.782
1832	19	0.983	0.888
1833	23	0.971	0.941
1834	40	0.964	0.560
1839	39	0.942	0.587
1846	16	0.945	0.737

SEQ ID NO:	Position of Signal in Amino Acid SEquence	maxS (Maximum score)	meanS (Mean score)
1847	24	0.946	0.593
1848	44	0.974	0.662
1850	26	0.974	0.730
1851	27	0.952	0.832
1856	25	0.960	0.642
1866	31	0.956	0.846
1869	16	0.968	0.921
1884	19	0.984	0.936

TABLE 7

SEQ ID	Chromsomal location
1	X
2	Xp21.2-p11.2
2 3	2
4	2
5	8
6	8
7	17
10	17
13	9
14	Xq24-q25
15	Xq24-q25
16	9p21
17	16
19	7q32
20	2
21	2
22	11
23	12q
27	22q11
28	бр
29	6p23
31	17g
32	12
33	2p23.3-q34
34	9q31-q32
35	19
36	19
37	19q13.3
38	6p21.3
39	10g26.2-10g26.3
40	3
42	12
43	6p2I-p12
44	13q12-13
46	2
47	3
48	15q15
49	22q13.33
50	5q14-q22
51	X
52	19cen-q13.2
53	3p26

SEQ ID	Chromsomal location
54	2p24.3
55	3p26 3p26
56	3p26
57	15
60	15
62	1p21.2-22.3
65	11q12-q13.1
66	xp11
67	20q11.21-q13.12
69	2
70	X
71	1
72	1q21.2-q21.3
73 74	17p11.2 X
75	19
76	9
80	19
83	6q16
85	15
86	12
87	17q22-q24
88	8q22-q23
90	15
91	14932.3
94	14
95	7
96	10q26.1
97	9p21
98	16q24.3
99	5
101	15
102	19
103	6p21.3
104	11p15.3-p15.4
105 107	16
111	14q32.1-q32.2 11q13
112	9
114	2q35
115	22q13
116	16
117	16
118	16q24.3
120	19
122	1
123	20
124	9
125	3
126	11
127	22q11.2
128	20q11.2-12
129	14
131	10q25.1
133	17p11.2
134	20
136	4p16.3

SEQ ID	Chromsomal location
137	12pl3
138	19
139	1p34.1-p32
140	4 or_17
143	Xq13.1-13.3
144	3
145	3
146	5
147	9
148	11q13
149	6
150	15
151	19
152	Xp11.21-11.23
153	18q22-q23
155	16
157	4
160	1p36.23-p33
161	9q22.2
163	4
165	3
166	17
167	6p21.3
168	16
169	9
170	19
171	15
172	2p25
173	22q11.21
174	18q22
179	6p21.3
180	15q14
181	59
183	5
184	111
187	11
188	3p21.3
189	12p13-qter
190	12p13-qter
191	12p13-qter
192	12p13-qter
193	2q34-q35
194	2q34-q35
195	10
199 200	7q11-q22
201	7q22.1-7q31.33 3
202	19q13.4
203	3
205	Xq28
206	6
208	Xq26.2-27.2
209	4
210	4
211	1q31
212	19q12-19q13.1
213	6q23

SEQ ID	Chromsomal location
214	10
215	1
216	1p32.2-34.2
217	8
218	11q13
219	1q21-q23
220	Xq28
221	16
222	17
223 224	1
225	19p13.3
226	19p11-q11
227	1
228	1
229	12
230	5
231	1p31
232	1p31.1-p22.3
233	22q11.23
234	22q12.1-q12.3
235	1
236	17
237	15
238	2p13
239	17
241	11p13
242	11
243	4q22-q24
244	12
245	19
246 247	5 14
248	16
249	14
250	4
251	19
252	9p22-p21_or_9p13
256	11q
257	9q33-q34.1
258	12pter-p13.31
260	8
261	11914
262	17
263	12q13
264	16q13-q21
265	16q13-q21
267	6q26-27
268	9q12-q21.2
269	9q12-q21.2
270	9q12-q21.2
271	19
272 273	1p34.1-35.3
274	11
275	X
277	2

SEQ ID	Chromsomal location
278	16
280	19q13.1-q13.2
282	12
284	2p23.3-q24.3
285	11p15
286	19
287	7
288	10
290	12
293	3q23-q24
294	1p34.1-35.3
295	p22.2-31.1
296	3q22-q24
297	6
299	2p11
300	16
301	10q24
302	10
304	12q22-q23
305	17pter-p11
307	1p35-p34
308	9
309	21
310 311	12p13
312	1
313	1
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369	1p36.21
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377	7q32-q34
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704	20p13		
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756	5pter-p13.3		
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758	19q13		
760	19		
761	14		
762	19		
763	X		
765	x		
766	9q34.3		
767	17		
769	5		
770	14		
771	17q12		
772	20		
773	17		
774	8		
775	3		
776	15		
777	8		
778	6		
779	17		
780	15		
781	14		
782	11		
783	19q13.4		
784	8p11.2		
785	8		
786	8		
787	17		
788	8		
789	1942.13-43		
790	7q11.21-q11.23		
791	11		
792	3p13-q13.2		
793	9		
794	11q12		
795	1p32.2-34.2		
797 798	18		
798	18		
800	11q13		
	17		
801 802	7p15-p21		
	17		
803 805	17p13.1 17q25.3		
806	17925		
808	17q25 5		
809	7p15-p14		
810			
811	9q34.2-q34.3		
812	6		
813	8		
814	17		
815	20		
VI - VI - VI - VI - VI - VI - VI - VI -	<u> </u>		

SEQ ID	Chromsomal location
816	7q34-q36
817	14q21.1-q21.3
818	1p32.1-33
819	5
820	6p21.3
821	17
822	15
823	5
824	19
825	1p32.3
826 827	11
828	p34.1-34.3
829	16
830	8p11.2
831	17q21.3-17q22
833	17
834	7p
835	21
836	10cen-q26.11
837	19
838	5
840	10
841	7q11-q22
842	11
843	17
844	3
845	17
846	17
847	17
848 849	10
850	5q
851	5
853	7q35-qter
854	19
855	19
857	8
858	16
860	10
861	19
863	18p11.2
864	17
866	15q15
867	7
868	12
869	1
870	11q23
871 872	16
872 873	16p13.3
874	17q12-q21 11q13.5
875	11q13.5 11cen-q12.1
876	16q13
877	X
878	1q21-q23
879	xq22.1-q22.3
· · · · · · · · · · · · · · · · · · ·	N400.1-400.3

SEQ ID Chromsomal location 880 1p31.2-32.3 881 19q13.3-q13.4 883 3p 884 7 885 14q32 886 2		
881 19q13.3-q13.4 883 3p 884 7 885 14q32 886 2		
883 3p 884 7 885 14q32 886 2		
884 7 885 14q32 886 2		
885 14q32 886 2		
886 2		
	12	
887 22q11.2		
888 12		
889 15		
890 18		
891 17		
892 Xq21.33-22.3		
893 6p21.32-22.2		
894 11		
895 7q33-q34		
897 13		
898		
901		
902 14		
904 16p11.2		
905 21q22.3		
907 10		
909 X		
910 10q26		
911 20		
912		
913 18		
914 6		
915 10		
916		
917		
919 15q15		
920 20		
921 22q12.3		
922 16		
923		
924 2q33.3		
927 9		
928 2q21		
929 19		
930 18		
931 16		
932		
934 11p15		
936 7q35		
937 6q22.1-22.33		
939 17		
940 17		
941 17		
942 4		
943 1p36.31-p36.11		
944 9		
945		
946 19p13.3		
947 22q11.2		
948 5		

TABLE 8

TABLE 6		1
SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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6	954	6
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16	964	16
17	965	17
18	966	18
19	967	19
20	968	20
21	969	21
22	970	22
23	971	23
24	972	24
25	973	25
26	974	26
27	975	27
28	976	28
29	977	29
30	978	30
		31
31	979	32
32	980	33
33	981	33
34	982	35
35	983	
36	984	36
37	985	37
38	986	38
39	987	39
40	988	40
41	989	41
42	990	42
43	991	43
44	992	44
45	993	45
46	994	46
47	995	47
48	996	48
49	997	49
50	998	50
51	999	51
52	1000	52
53	1001	53
54	1002	54

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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56	1004	56
57	1005	57
58	1006	58
59	1007	59
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61	1009	61
62	1010	62
63	1011	63
64 65	1012 1013	64
66	1014	65 66
67	1015	67
68	1016	68
69	1017	69
70	1018	70
71	1019	71
72	1020	72
73	1021	73
74	1022	74
75	1023	75
76	1024	76
77	1025	77
78	1026	78
79	1027	79
80	1028	80
81	1029	81
82	1030	82
83	1031	83
84	1032	84
85	1033	85
86 87	1034 1035	86
88	1036	87
89	1037	89
90	1038	90
91	1039	91
92	1040	92
93	1041	93
94	1042	94
95	1043	95
96	1044	96
97	1045	97
98	1046	98
99	1047	99
100	1048	100 `
101	1049	101
102	1050	102
103	1051	103
104	1052	104
105	1053	105
106	1054	106
107	1055	107
108	1056	108
109	1057	109
110	1058	110

SEQ ID NO of Full-length	SEQ ID NO of Full-length	SEQ ID NO in Priority Application
Nucleotide Sequence	Peptide Sequence	USSN 09/799,451
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112	1060	112
113	1061	113
114	1062	114
115	1063	115
116	1064	116
117	1065	117
118	1066	118
119	1067	119
120	1068	120
121	1069	121
122	1070	122
123	1071	123
124	1072	124
125	1073	125
126	1074	126
127	1075	127
128	1076	128
129	1077	129
130	1078	130
131	1079	131
132	1080	132
133	1081	133
134	1082	134
135	1083	135
136	1084	136
137	1085	137
138	1086	138
139	1087	139
140	1088	140
141.	1089	141
142	1090	142
143	1091	143
144	1092	144
145	1093	145
146	1094	146
147	1095	147
148	1096	148
149	1097	149
150	1098	150
151	1099	151
152	1100	152
153	1101	153
154	1102	154
155	1103	155
156	1104	156
157	1105	157
158	1106	158
159	1107	159
160	1108	160
161	1109	161
162	1110	162
163	1111	163
164	1112	164
165	1113	165
166	1114	166

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
167	1115	167
168	1116	168
169	1117	169
170	1118	170
171	1119	171
172	1120	172
173	1121	173
174	1122	174
175	1123	175
176 177	1124 1125	176
178	1126	177
179	1127	178
180	1128	180
181	1129	181
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183	1131	183
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198 199	1146 1147	198 199
200	1147	200
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204	1152	204
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206	1154	206
207	1155	207
208	1156	208
209	1157	209
210	1158	210
211	1159	211
212	1160	212
213	1161	213
214	1162	214
215	1163	215
216	1164	216
217	1165	217
218	1166	218
219	1167	219
220	1168 1169	220
221	1170	221
444	11/0	222

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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224	1172	224
225	1173	225
226	1174	226
227	1175	227
228	1176	228
229	1177	229
230	1178	230
231	1179	231
232	1180	232
233	1181	233
234	1182	234
235	1183	235
236	1184	236
237	1185	237
238	1186	238
239	1187	239
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242	1190	242
243	1191	243
244	1192	244
245	1193	245
246	1194	246
247	1195	247
248	1196	248
249	1197	249
250	1198	250
251	1199	251
252	1200	252
253	1201	253
254	1202	254
255	1203	255
256	1204	256
257	1205	257
258	1206	258
259	1207	259
260	1208	260
261	1209	261
262	1210	262
263	1211	262
264	1212	264
265	1213	265
266	1214	266
267	1214	
268	1216	267
269		268
270	1217 1218	269
271	1218	270
	1220	271
272		272
273	1221	273
274	1222	274
275	1223	275
276	1224	276
277	1225	277
278	1226	278

SEQ ID NO of Full-length	SEQ ID NO of Full-length	SEQ ID NO in Priority Application
Nucleotide Sequence	Peptide Sequence	USSN 09/799,451
279	1227	279
280	1228	280
281	1229	281
282	1230	282
283	1231	283
284	1232	284
285	1233	285
286	1234	286
287	1235	287
288	1236	288
289_	1237	289
290	1238	290
291	1239	291
292	1240	292
293	1241	293
294	1242	294
295	1243	295
296	1244	296
297	1245	297
298	1246	298
299	1247	299
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302	1250	302
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305	1253	305
306	1254	306
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308	1256	308
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310	1258	310
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312	1260	312
313	1261	313
314	1262	314
315	1263	315
316	1264	316
317	1265	317
318	1266	318
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320	1268	320
321	1269	321
322	1270	322
323	1271	323
324	1272	324
325	1273	325
326	1274	326
327	1275	327
328	1276	328
329	1277	329
330	1278	330
331	1279	331
332	1280	332
333	1281	333
334	1282	334

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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336	1284	336
337	1285	337
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339	1287	339
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347	1295	347
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349	1297	349
350	1298	350
351	1299	351
352	1300	352
353	1301	353
354	1302	354
355	1303	355
356	1304	356
357	1305	357
358	1306	358
359	1307	359
360	1308	360
361	1309	361
362	1310	362
363	1311	363
364	1312	364
365	1313	365
366	1314	366
367	1315	367
368	1316	368
369	1317	369
370 371	1318	370
372	1319 1320	371 372
373	1321	373
374	1322	374
375	1323	375
376	1324	376
377	1325	377
378	1326	378
379	1327	379
380	1328	380
381	1329	381
382	1330	382
383	1331	383
384	1332	384
385	1333	385
386	1334	386
387	1335	387
388	1336	388
389	1337	389
390	1338	390
	1333	. 370

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
391	1339	391
392	1340	392
393	1341	393
394	1342	394
395	1343	395
396	1344	396
397	1345	397
398	1346	398
399	1347	399
400	1348	400
401	1349	401
402	1350	402
403	1351	403
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408	1356	408
409	1357	409
410	1358	410
411	1359	411
412	1360	412
413	1361	413
414	1362	414
415	1363	415
416	1364	416
417	1365	417
418	1366	418
419	1367	419
420	1368	420
421	1369	421
422	1370	422
423	1371	423
424	1372	424
425	1373	425
426	1374	426
427	1375	427
428	1376	428
429	1377	429
430	1378	430
431	1379	431
432	1380	432
433	1381	432
434	1382	434
435	1383	435
436	1384	436
437	1385	437
438	1386	438
439	1387	439
440	1388	440
441	1389	441
442	1390	442
443	1391	443
444	1392	444
445	1393	445
446	1394	446

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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448	1396	448
449	1397	449
450	1398	450
451	1399	451
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453	1401	453
454	1402	454
455	1403	455
456	1404	456
457	1405	457
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459	1407	459
460	1408	460
461	1409	461
462	1410	462
463	1411	463
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468	1416	468
469	1417	469
470	1418	470
471	1419	471
472	1420	472
473	1421	473
474	1422	474
475	1423	475
476	1424	476
477	1425	477
478	1426	478
479	1427	479
480	1428	480
481	1429	481
482	1430	482
483	1431	483
484	1432	484
485	1433	485
486	1434	486
487	1435	487
488	1436	488
489	1437	489
		490
490	1438	
491	1439	491
492	1440	492
493	1441	493
494	1442	494
495	1443	495
496	1444	496
497	1445	497
498	1446	498
499	1447	499
500	1448	500
501	1449	501
502	1450	502

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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504	1452	504
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508	1456	508
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511	1459	511
512	1460	512
513	1461	513
514	1462	514
515	1463	515
516	1464	516
517	1465	517
518	1466	518
519	1467	519
520	1468	520
521	1469	521
522	1470	522
523	1471	523
524	1472	524
525	1473	525
526	1474	526
527	1475	527
528	1476	528
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530	1478	530
531	1479	531
532	1480	532
533	1481	533
534	1482	534
535	1483	535
536	1484	536
537	1485	537
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542	1490	542
543	1491	543
544	1492	544
545	1493	545
546	1494	546
547	1495	547
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,551 562	1499	551
552	1500	552
553	1501	553
554	1502	554
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557	1505	557
558	1506	558

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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561	1509	561
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613	1561	613
614	1562	614

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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623	1571	623
624	1572	624
625	1573	625
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627	1575	627
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652	1600	
653	1601 1602	653 654
654		
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656	1604	656
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658	1606	658
659	1607	659
660	1608	660
661	1609	661
662	1610	662
663	1611	663
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666	1614	666
667	1615	667
668	1616	668
669	1617	669
670	1618	670

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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688	1636	688
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692	1640	692
693	1641	693
694	1642	694 695
695	1643	
696 697	1644	696 697
698	1646 1647	698 699
699 700	1648	700
701	1649	701
702	1650	702
703	1651	703
704	1652	704
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719	1667	719
720	1668	720
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723	1671	723
724	1672	724
725	1673	725
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SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
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742	1690	742
743	1691	743
744	1692	744
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757	1705	757
758	1706	758
759	1707	759
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761	1709	761
762	1710	762
763	1711	763
764	1712	764
765	1713	765
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767	1715	767
768	1716	768
769	1717	769
770	1718	770
771	1719	771
772	1720	772
773	1721	773
774	1722	774
775	1723	775
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779	1727	779
780	1728	780
781	1729	781
782	1730	782

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
783	1731	783
784	1732	784
785	1733	785
786	1734	786
787	1735	787
788	1736	788
789	1737	789
790	1738	790
791	1739	791
792	1740	792
793	1741	793
794	1742	794
795	1743	795
796	1744	796
797	1745	797
798	1746	798
799	1747	799
800	1748	800
801	1749	801
802	1750	802
803	1751	803
804	1752	804
805	1753	805
806	1754	806
	1755	807
807	1756	808
808		809
809	1757 1758	810
810		
811	1759	811
812	1760	812
813	1761	813
814	1762	814
815	1763	815
816	1764	816
817	1765	817
818	1766	818
819	1767	819
820	1768	820
821	1769	821
822	1770	822
823	1771	823
824	1772	824
825	1773	825
826	1774	826
827	1775	827
828	1776	828
829	1777	829
830	1778	830
831	1779	831
832	1780	832
833	1781	833
834	1782	834
835	1783	835
836	1784	836
837	1785	837
838	1786	838

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
839	1787	839
840	1788	840
841	1789	841
842	1790	842
843	1791	843
844	1792	844
845	1793	845
846	1794	846
847	1795	847
848	1796	848
849	1797	849
850	1798	850
851	1799	851
852	1800	852
853	1801	853
854	1802	854
855	1803	855
856	1804	856
857	1805	857
858	1806	858
859	1807	859
860	1808	860
861	1809	861
862	1810	862
863	1811	863
864	1812	864
865	1813	865
866	1814	866
867	1815	867
868	1816	868
869	1817	869
870	1818	870
871	1819	871
872	1820	872
873	1821	873
874	1822	874
875	1823	875
876	1824	876
877	1825	877
878	1826	878
879	1827	879
880	1828	880
881	1829	881
882	1830	882
883	1831	883
884	1832	884
885	1833	885
886	1834	886
887	1835	887
888	1836	888
889	1837	889
890	1838	890
891		891
892	1839 1840	892
893		892
894	1841	
074	1842	894

SEQ ID NO of Full-length Nucleotide Sequence	SEQ ID NO of Full-length Peptide Sequence	SEQ ID NO in Priority Application USSN 09/799,451
895	1843	895
896	1844	896
897	1845	897
898	1846	898
899	1847	899
900	1848	900
901	1849	901
902	1850	902
903	1851	903
904	1852	904
905	1853	905
906	1854	906
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908	1856	908
909	1857	909
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911	1859	911
912	1860	912
913	1861	913
914	1862	914
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918	1866	
919	1867	918
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923	1871	922
924	1872	923
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	1873	925
926 927	1874	926
928	1875 1876	927
929		928
930	1877	929
	1878	930
931 932	1879	931
	1880	932
933	1881	933
934	1882	934
935	1883	935
936	1884	936
937	1885	937
938	1886	938
939	1887	939
940	1888	940
941	1889	941
942	1890	942
943	1891	943
944	1892	944
945	1893	945
946	1894	946
947	1895	947
948	1896	948

CLAIMS

WHAT IS CLAIMED IS:

- An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 948, a mature protein coding portion of SEQ ID NO: 1 948, an active domain coding protein of SEQ ID NO: 1 948, and complementary sequences thereof.
- 2. An isolated polynucleotide encoding a polypeptide with biological activity, wherein said polynucleotide has greater than about 90% sequence identity with the polynucleotide of claim 1.
 - 3. The polynucleotide of claim 1 wherein said polynucleotide is DNA.

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- 4. An isolated polynucleotide of claim 1 wherein said polynucleotide comprises the complementary sequences.
- 5. A vector comprising the polynucleotide of claim 1.

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- 6. An expression vector comprising the polynucleotide of claim 1.
- 7. A host cell genetically engineered to comprise the polynucleotide of claim 1.
- 8. A host cell genetically engineered to comprise the polynucleotide of claim 1 operatively associated with a regulatory sequence that modulates expression of the polynucleotide in the host cell.
 - 9. An isolated polypeptide, wherein the polypeptide is selected from the group consisting of a polypeptide encoded by any one of the polynucleotides of claim 1 (i.e. SEQ ID NO: 949-1896).
 - 10. A composition comprising the polypeptide of claim 9 and a carrier.

11. An antibody directed against the polypeptide of claim 9.

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- 12. A method for detecting the polynucleotide of claim 1 in a sample, comprising:
- a) contacting the sample with a compound that binds to and forms a complex with the polynucleotide of claim 1 for a period sufficient to form the complex; and
- b) detecting the complex, so that if a complex is detected, the polynucleotide of claim 1 is detected.
- 13. A method for detecting the polynucleotide of claim 1 in a sample, comprising:
- a) contacting the sample under stringent hybridization conditions with nucleic acid primers that anneal to the polynucleotide of claim 1 under such conditions;
 - b) amplifying a product comprising at least a portion of the polynucleotide of claim 1; and
- c) detecting said product and thereby the polynucleotide of claim 1 in the sample.
 - 14. The method of claim 13, wherein the polynucleotide is an RNA molecule and the method further comprises reverse transcribing an annealed RNA molecule into a cDNA polynucleotide.
 - 15. A method for detecting the polypeptide of claim 9 in a sample, comprising:
 - a) contacting the sample with a compound that binds to and forms a complex with the polypeptide under conditions and for a period sufficient to form the complex; and
 - b) detecting formation of the complex, so that if a complex formation is detected, the polypeptide of claim 9 is detected.
- 16. A method for identifying a compound that binds to the polypeptide of claim 9, comprising:
 - a) contacting the compound with the polypeptide of claim 9 under conditions sufficient to form a polypeptide/compound complex; and
 - b) detecting the complex, so that if the polypeptide/compound complex is detected, a compound that binds to the polypeptide of claim 9 is identified.

17. A method for identifying a compound that binds to the polypeptide of claim 9, comprising:

- a) contacting the compound with the polypeptide of claim 9, in a cell, under conditions sufficient to form a polypeptide/compound complex, wherein the complex drives expression of a reporter gene sequence in the cell; and
- b) detecting the complex by detecting reporter gene sequence expression, so that if the polypeptide/compound complex is detected, a compound that binds to the polypeptide of claim 9 is identified.

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- 18. A method of producing the polypeptide of claim 9, comprising,
- a) culturing a host cell comprising a polynucleotide sequence selected from the group consisting of a polynucleotide sequence of SEQ ID NO: 1-948, a mature protein coding portion of SEQ ID NO: 1-948, an active domain coding portion of SEQ ID NO: 1-948, complementary sequences thereof, under conditions sufficient to express the polypeptide in said cell; and
 - b) isolating the polypeptide from the cell culture or cells of step (a).
- 19. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of any one of the polypeptides from the Sequence Listing, the mature protein portion thereof, or the active domain thereof.
 - 20. The polypeptide of claim 21 wherein the polypeptide is provided on a polypeptide array.

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- 21. A collection of polynucleotides, wherein the collection comprising the sequence information of at least one of SEQ ID NO: 1-948.
- 22. The collection of claim 21, wherein the collection is provided on a nucleic acid array.

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23. The collection of claim 22, wherein the array detects full-matches to any one of the polynucleotides in the collection.

24. The collection of claim 22, wherein the array detects mismatches to any one of the polynucleotides in the collection.

25. The collection of claim 21, wherein the collection is provided in a computer-readable format.

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- 26. A method of treatment comprising administering to a mammalian subject in need thereof a therapeutic amount of a composition comprising a polypeptide of claim 9 or 19 and a pharmaceutically acceptable carrier.
- 27. A method of treatment comprising administering to a mammalian subject in need thereof a therapeutic amount of a composition comprising an antibody that specifically binds to a polypeptide of claim 9 or 19 and a pharmaceutically acceptable carrier.

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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, II., IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
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Published:

- with international search report
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- (88) Date of publication of the international search report: 20 November 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

(57) Abstract: The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/05095

A. CLAS	SIFICATION OF SUBJECT MATTER					
IPC(7) : C07H 21/02, 21/04; C12Q 1/68						
US CL	: 435/6; 536/23.1, 23.5, 24.31, 24.33					
	International Patent Classification (IPC) or to both r	national classifi	cation and IPC			
B. FIELDS SEARCHED						
	cumentation searched (classification system followed	by classification	on symbols)	}		
0.5. : 40	35/6; 536/23.1, 23.5, 24.31, 24.33]		
Documentation	on searched other than minimum documentation to th	e extent that su	ch documents are included	l in the fields searched		
	ta base consulted during the international search (national search)	me of data base	and, where practicable, s	earch terms used)		
Please See Co	onunuation Sheet					
	UMENTS CONSIDERED TO BE RELEVANT					
Category *	Citation of document, with indication, where a			Relevant to claim No.		
Х	Database NCBI, National Center for Biotechnology			1-8		
	Medicine, NIH (Bethesda, MD, USA). 09 October	r 2000, Genban	k Accession No.	10.14.10		
Y	AV705957.			12-14, 18		
37	WO 99/24836 A1 (HUMAN GENOME SCIENCE)	e INC VOM	NT 1000 (20 05 1000)	18, 12-14, 18, 21-25		
X	pages 1-27, 184, 200-215, 226-243 and 292, especi			10, 12-14, 10, 21-25		
	pages 1-27, 104, 200 213, 220 210 and 223, super-	many puber iv.				
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Burther	r documents are listed in the continuation of Box C.	See	patent family annex.			
	Special categories of cited documents:		r document published after the inte	enational filing date or priority		
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1	it referring to an oral disclosure, use, exhibition or other means					
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priority date claimed						
Date of the actual completion of the international search Data of mailing of the international search report						
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Down DOT/IC	A /210 (second sheet) (July 1998)					

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/05095

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)					
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:					
1.		Claim Nos.: because they relate to subject matter not required to be searched by this Authority, namely:			
2.		Claim Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:			
3.	6.4(a).	Claim Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule			
Box	II Ob	servations where unity of invention is lacking (Continuation of Item 2 of first sheet)			
This	Internat	ional Searching Authority found multiple inventions in this international application, as follows: ontinuation Sheet			
1.		As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.			
2.	\boxtimes	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite			
3.		payment of any additional fee. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:			
4.		No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:			
Ren	nark on	Protest The additional search fees were accompanied by the applicant's protest.			
		No protest accompanied the payment of additional search fees.			

Form PCT/ISA/210 (continuation of first sheet(1)) (July 1998)

	PCT/US02/05095	
INTERNATIONAL SEARCH REPORT		

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional fees must be paid.

Groups 1-948, claims 1-8, 12-14, 18 and 21-25, drawn in part to polynucleotides, vectors and host cells containing polynucleotides and methods of detecting polynucleotides, wherein the polynucleotide is selected from the group consisting of the polynucleotides of SEQ ID NO: 1-948. It is noted that Groups 1-948 correspond to each of the individual polynucleotide sequences of SEQ ID NO: 1- 948. For example, Group 1 corresponds to the polynucleotides of SEQ ID NO: 1.

Groups 949-1896, claims 9-10, 19 and 20, drawn in part to polypeptides, wherein the polypeptide is selected from the group of polypeptides encoded by a polynucleotide of SEQ ID NO: 1-948. It is noted that Groups 949-1896 correspond to each of the individual polypeptides encoded by the polynucleotides of SEQ IDNO: 1-948. For example, Group 949 corresponds to the polypeptide encoded by SEQ ID NO: 1. Upon election of one of the groups, please specify the SEQ ID NO of the polypeptide and of the polymucleotide encoding the polypeptide.

Groups 1897-2844, claim 11, drawn in part to antibodies against the polypept ides encoded by the polynucleotides of SEQ ID NO: 1-948. It is noted that Groups 1897-2844 correspond to each of the individual antibodies against the polypeptides encoded by the polynucleotides of SEQ ID NO: 1-948. For example, Group 1897 corresponds to the polypeptide encoded by SEQ ID NO: 1. Upon election of one of the groups, please specify the SEQ ID NO of the polypeptide and of the polynucleotide encoding the polypeptide to which the antibody is directed.

Groups 2845-3792, claims 15-17, drawn in part to methods of detecting polypeptides, wherein the polypeptide is selected from the group of polypeptides encoded by a polynucleotide of SEQ ID NO: 1-948. It is noted that Groups 2845-3792 correspond to methods of detecting each of the individual polypeptides encoded by the polynucleotides of SEQ IDNO: 1-948. For example, Group 2854 corresponds to methods of detecting the polypeptide encoded by SEQ ID NO: 1. Upon election of one of the groups, please specify the SEQ ID NO of the polypeptide and of the polypucleotide encoding the polypeptide to be detected.

Groups 3793-4740, ctaim 26, drawn in part to methods of treatment using a polypeptide, wherein the polypeptide is selected from the group of polypeptides encoded by a polypucleotide of SEQ ID NO: 1- 948. It is noted that Groups 3793-4740 correspond to methods of treatment using each of the individual polypeptides encoded by the polypucleotides of SEQ ID NO: 1- 948. For example, Group 3793 corresponds to methods of treatment using the polypeptide encoded by SEQ ID NO: 1. Upon election of one of the groups, please specify the SEQ ID NO of the polypeptide and of the polypucleotide encoding the polypeptide to be used in the method of treatment.

Groups 4741-5688, claim 27, drawn in part to methods of treatment using an antibody against a polypeptide, wherein the polypeptide is selected from the group of polypeptides encoded by a polynucleotide of SEQ ID NO: 1- 948. It is noted that Groups 4741-5688 correspond to methods of treatment using each of the individual antibodies against the polypeptides encoded by the polymucleotides of SEQ IDNO: 1-948. For example, Group 4741 corresponds to methods of treatment using the antibodies against the polypeptide encoded by SEQ ID NO: 1. Upon election of one of the groups, please specify the SEQ ID NO of the polypeptide and of the polymucleotide encoding the polypeptide to which the antibody is directed. The inventions listed as Groups 1- 5688 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Groups 1-948 are drawn to polynucleotides comprising the nucleic acid sequence of SEQ ID NO: 1-948. Each of these polynucleotides differ in their chemical structures, properties and functions. For example, a polynucleotide comprising SEQ ID NO: 1 is structurally, chemically and functionally distinct from a polynucleotide comprising SEQ ID NO: 2. Accordingly, the polynucleotides do not share a corresponding special technical feature. Further, the polypeptides of Groups 949- 1896 are each comprised of a specific and different amino acid sequence and each polypeptide is structurally, chemically and functionally different from each other. For example, the polypeptides encoded by SEQ ID NO: 1 (Group 949) are structurally, chemically, and functionally different from the polypeptides encoded by SEQ ID NO: 2 (Group 950). Thereby, the polypeptides of Groups 949- 1896 do not share a corresponding special technical feature. Similarly, the antibodies of Groups 1897- 2844 each differ from one another with respect to their amino acid sequence and with respect to their functional properties. For example, an antibody against the protein encoded by SEQ ID NO: 1

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INTERNATIONAL SEARCH REPORT

(Group 1897) has a different amino acid sequence and different chemical and functional properties as compared to an antibody against the protein encoded by SEQ ID NO: 2 (Group 1898).

Groups 1-948, Groups 949-1896, and Groups 1897- 2844 are drawn to multiple, different products lacking the same or corresponding technical features. The special technical feature of the polynucleotides of Groups 1- 948 is the identity of its monomers which are nucleotides and which determine its structure, properties and function. In contrast, the special technical feature of the polypeptides of Groups 949-1896 are its amino acid monomers, which determine its structure, properties and function. The amino acids of a polypeptide are linked by peptide bonds and are arranged in a complex configurations, comprising, for example, alpha helices, beta pleated sheets, hydrophobic domains and hydrophilic domains. While polypucleotides may be utilized in nucleic acid hybridization assays, polypeptides may not be used in such assays. Similarly, while polypeptides may have specific biological functions such that they may function as enzymes, hormones or receptors, polynucleotides do not have these activities. Further, the amino acids of Groups 1897-2844 have the special technical feature of being composed of amino acids that are arranged in a specific terriary structure wherein four subunits (2 light chains and 2 heavy chains) are joined via disulfide bonds. While antibodies bind to specific target antigens and function in immunological reactions, such that they may neutralize an antigen, polynucleotides do not have these functional activities. The antibodies of Groups 1897- 2844 differ with respect to their amino acid sequence, secondary and tertiary structure and their functional activities from the polypeptides of Groups 949- 1896.

Groups 2845-3792 and Groups 3793-4740 are drawn to methods which have different active process steps. The methods of Groups 2845-3792 require the detection of a complex that forms between a polypeptide and a compound that binds to a polypeptide. This step is not required to practice the methods of Groups 3793-4740. Additionally, the methods of Groups 3793-4740 require performing a step of administering to a mammal a therapeutic amount of a polypeptide. This step is not required to practice the methods of Groups 2845-3792.

Further, pursuant to 37 CFR 1.475(d), this Authority considers that where multiple products and processes are claimed, the first recited product, method of making the product and method of using t he product constitutes the main invention. Additionally, pursuant to 37 CFR 1.475(d), this Authority considers that any subsequently recited products and methods do not share a special technical feature with the main invention or any such other invention. Accordingly, polynucleotides and methods of detecting polynucleotides are considered to constitute the main invention. The inventions of groups 949 -5688 constitute additionally recited products and processes which are not considered to share a special technical feature with the main invention or with the other inventions.

Continuation of B. FIELDS SEARCHED Item 3: GENBANK EMBL, GENE-SEQ, EST databases SEQ ID NO: 1